

THE BOYS OWN PAPER

Quicquid agunt pueri nostri farrago libelli.
CONTENTS.

	PAGE
Jerry's Visit, and What Came of It. By the Rev. H. C. ADAMS, M.A. (Illustrated).....	65, 81, 102
The Great Canals. (Illustrated).....	68, 83
Armor in History and Romance. By JOHN SACHS. (Illustrated).....	70, 92, 109, 118
School and the World: a Story of School and City Life. By PAUL BLAKE. (Illustrated).....	72, 89, 97, 121, 135
The Adventures of an Aide-de-Camp.....	74, 91
The Star of the South: a Tale of the Diamond Fields. By JULES VERNE. (Illustrated).....	75, 84, 100, 115, 132
Great Shipwrecks of the World.....	77, 123
Doings for the Month.....	78
Fishing for the Month.....	79
Great African Explorers. (With Portrait).....	85
Chick Minor's Hats. (Illustrated).....	88
Two Hours with a Trowel. By THEODORE WOOD.....	94, 106
Canoes, and How to Build Them. By C. STANSFELD-HICKS. (Illustrated).....	94, 104, 126
Ivan Dobroff; a Russian Story. By Prof. J. F. HODGETTS. (Illustrated).....	98, 113, 129
The Counties of England.....	107
Studies from Nature—Autumn in the Woods. (Illus.)....	108
Jack o' the Mill. A Tale of the Border. (Illustrated).....	137
The Sea Kings of Old England. (Illustrated).....	139
The Original Robinson Crusoe.....	142
Our Note Book. Chess. Correspondence. Poetry.	

With Coloured Presentation Plate.

The Arms of the English Counties.

Caution! Observe Our Trade Marks

And Do Not Be Deceived.



THIS TRADE MARK IS
STAMPED ON ALL HOLLOW
WARE OF OUR MANUFACTURE.

THIS TRADE MARK IS
STAMPED ON ALL KNIVES,
FORKS AND SPOONS OF
OUR MANUFACTURE.

1847 Rogers Bros. A 1
OR
1847 Rogers Bros. XII

The Meriden Britannia Co. would respectfully caution all intending purchasers of Electro-plated Ware against the Spurious Goods that are being advertised and sold through a similarity of names as our manufacture. All Genuine Goods of the Meriden Britannia Company's make bear the above Trade Mark. Articles stamped

Meriden Silver Plate Co. or Meriden Silver Co. ARE NOT our Manufacture

PROTECT YOURSELF AGAINST IMPOSITION BY CAREFULLY OBSERVING THE ABOVE.

MERIDEN BRITANNIA COMPANY,

Manufacturers of Finest Electro Gold and Silver Plated Ware, Hamilton, Ont.

EDWARD LAWSON

Offers to families for the Holiday Season a choice selection of THIS SEASON'S FRUIT—Raisins, Currants, Figs, Lemon, Orange, and Citron Peel. New Walnuts, Almonds, and other choice nuts. Cadbury's Choice Chocolate. The Sign of THE QUEEN is always noted for Choice Teas and Coffees.

Grocer and Confectioner

Candies manufactured on the premises from Pure Stock. Cakes of all kinds, from the Handsome Wedding Cake to the Penny Bun. Canadian Breakfast Cereals—Wheat, Oats, Maize and Crushed Barley—the choicest Table Foods known.

93 King St. E., Toronto.

Confederation Life Association,

HEAD OFFICE. TORONTO, ONT.

Capital and Assets, over \$2,152,728

President, SIR W. P. HOWLAND, C.B., K.C.M.G.
Vice-Presidents, { Hon WM. McMASTER
WM. ELLIOT, Esq.

DIRECTORS:

Hon. Ch. Justice MACDONALD,	JAMES YOUNG, M.P.P.
Hon. ISAAC BURPEE, M.P.	F. A. BAILL, Esq.
W. H. BEATTY, Esq.	M. P. RYAN, Esq.
EDWARD HOOVER, Esq.	S. NORDHEIMER, Esq.
J. HERBERT MASON, Esq.	W. H. GIBBS, Esq.
A. MCLEAN HOWARD, Esq.	J. D. EDGAR, Esq.

Confines Itself to Legitimate Life Insurance

FINANCIAL STRENGTH UNSURPASSED

Progress Unexampled!

Profits Distributed Equitably!

Policies Non-Forfitable after Two Years.

Policies Indisputable after Three Years.

J. K. MACDONALD,
Managing Director.

CLAPPERTON'S
SPOOL COTTON
IS THE BEST MADE.
TRY IT AND BE SATISFIED

GOOD CHEER!

Thousands of Homes made happy by using

The C.B.C. Cereals

The Choicest Foods in the World.

These delicious Foods are prepared by a new process by which the grain is thoroughly cleansed from all its impurities, Pearled, Cooked, Dessicated and Crushed, rendering them the most wholesome and palatable Foods extant, strongly recommended by the Medical Faculty for children and adults.

Get a Packet from your Grocer and Try Them

Prepared solely by

The Canadian Food Co.,

38 CHURCH ST., TORONTO, CANADA.

TO LADIES ONLY.

CORALINE

CORSETS

Is the NEW MATERIAL used for Boning

Superior to anything that has ever been discovered, and used as a substitute for whale-bone. The invention is covered by patents, manufactured only by the

CROMPTON CORSET CO'Y

Some manufacturers are using common cord and other inferior articles, which in comparison are useless, calling them similar names to deceive.

In purchasing Corsets, ladies will please insist upon seeing the word "CORALINE" on each Corset and box, and that the makers are the

CROMPTON CORSET CO.

None others are genuine, and will not give satisfaction.

FANCY WORK. We have issued a voluminous work and carefully edited book on **Silk-Knitting, Crocheting and Embroidery.** It has a number of attractive patterns, with full directions for making the fancy work now so much in vogue. We will mail a copy on receipt of 6 cents in stamps.

BELDING, PAUL & CO., Montreal.



THE LATEST STYLE
is DORENWEID'S LANCETRY WAVES.
Thousands are now wearing them.
Also Water Waves, Bangs, Switches, Wigs, &c.
SEND FOR PRICE LIST.

PARIS HAIR WORKS,
105 YONGE STREET, TORONTO.

A. B. FLINT

—IS GIVING—

10 per ct. Discount

—OFF ALL HIS—

New Stock of Dry Goods, Silks, Dresses, Flannels, Jackets, Velvets, &c.

10c. off Every Dollar, all New Stock, at

109 King Street East.

3 Doors east of Church Street.

Accident Insurance Company

OF NORTH AMERICA.

HEAD OFFICE - - - MONTREAL.
SIR A. T. GALT, - - - PRESIDENT
EDWARD RAWLINGS, - - - MAN. DIRECTOR

Grants Insurance or Indemnity payable in the event of Accidental Death or Injury.
Has paid \$,000 claims and never contested any at law.
Does the largest business in the Dominion.

MEDLAND & JONES,
Gen. Agents, Toronto District.
N. E. Cor. Victoria and Adelaide Sts.



CHRISTMAS GOODS

SLIPPERS.

Gentlemen's Velvet and Cloth Embroidered and Garnet Morocco.

Ladies' Pink, Blue, Cream, and Black Satin.
Ladies' French Kid, embroidered with Gold, Silver, Jet and Silk, all very elegant.
PLEASE CALL AND SEE THEM.

79 KING ST. E., TORONTO.

Harpers' Bazar Pattern House.

All Cut Patterns published in Harper's Bazar, New York (weekly), sent to any address on receipt of price. Send for Sheets and Catalogues.
A Choice Selection of

French and American Millinery.

Dresses and Mantles in the Latest Styles at reasonable rates. Dress Trimmings, Fancy Goods, etc

MRS. I. THORNHILL,

374½ Yonge St., - Toronto.

HOLIDAY GOODS.

100 doz. Silk Handkerchiefs from 12½c. each up to \$2.50.

20 doz. Limerick Lace Handkerchiefs from 25c. up

50 doz. Lace and Muslin Collars from 10c. to \$3.50.

500 doz. Kid Gloves in Blacks, Tans, Fawns, Dark and Opera shades—in 2, 4, 6, 8 and 10 button lengths, at from 10c. up to \$1.38.

Wool Shawls in all colors, sizes and prices.

Fur and Chenille Capes, all sizes and prices.

Ladies' Plush and Leather Satchels at wholesale prices.

10,000 Articles suitable for Holiday Presents at our Special Sale Prices.

J. M. HAMILTON, 184 Yonge Street

Sheppard's Drug Store

—FOR—

FINE XMAS GOODS

PLUSH ODOR CASES,

LADIES' COMPANIONS,

PERFUMES,

HAIR BRUSHES

And Miscellaneous

FANCY TOILET ARTICLES.

67 King Street West,

(Nearly opposite the Mail Building).

HOMŒOPATHIC PHARMACY,

394 Yonge Street, Toronto,

Keeps in stock Pure Homœopathic Medicines, in Tinctures, Dilutions and Pellets. Pure Sugar of Milk and Globules. Books and Family Medicine Cases from \$1 to \$12. Cases refilled. Vials refilled. Orders for Medicines and Books promptly attended to. Send for Pamphlet.

D. L. THOMPSON, Pharmacist.

NEVER BE WITHOUT
DUNN'S
 THE
COOK'S
 BEST
FRIEND
BAKING
POWDER.
 SOLD BY ALL GROCERS.

The "Skrei" Cod Liver Oil, pure, pale, and almost tasteless. No other Oil to compare with it.
 Kenneth Campbell & Co.



JOHNSTON'S FLUID BEEF.

This preparation is rapidly gaining public favour. The demand now supercedes that of any Extract of Meat in the market.

THE REASON IS APPARENT.

It is the only preparation of the kind which contains all the nutritious, together with the stimulating, properties of beef, and the only one which has the power to supply nourishment for brain, and bone, and muscle.

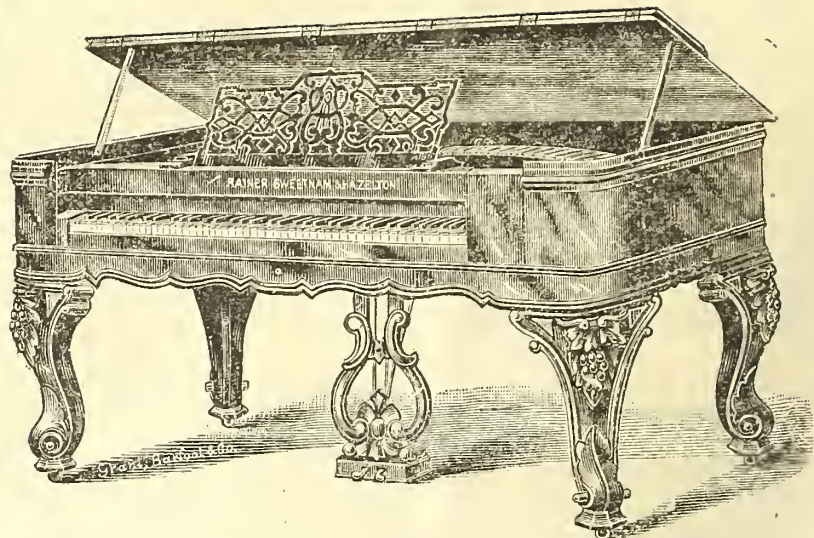
Burdock BLOOD BITTERS.

WILL CURE OR RELIEVE

BILIOUSNESS,	DIZZINESS,
DYSPEPSIA,	DROPSY,
INDIGESTION,	FLUTTERING
JAUNDICE,	OF THE HEART,
ERYSIPELAS,	ACIDITY OF
SALT RHEUM,	THE STOMACH,
HEARTBURN,	DRYNESS
HEADACHE,	OF THE SKIN,

And every species of disease arising from disordered LIVER, KIDNEYS, STOMACH, BOWELS OR BLOOD.

T. MILBURN & CO., Proprietors, TORONTO.



Our Pianos are Guaranteed to give satisfaction. They are reliable, and have been Awarded more **FIRST PRIZES** and **MEDALS** than any other Piano.

Intending Purchasers will find it to their advantage to send for Catalogues and Prices

SWEETNAM & HAZELTON,
 PIANO MANUFACTURERS,
 GUELPH, - ONTARIO.

KIDNEY-WORT

DOES
 WONDERFUL
 CURES OF
 KIDNEY DISEASES.
 AND
 LIVER COMPLAINTS.

Why?

Because it acts on the LIVER, BOWELS and KIDNEYS at the same time, Because it cleanses the system of the poisonous humors that develop in Kidney and Urinary Diseases, Biliousness, Jaundice, Constipation, Piles, or in Rheumatism, Neuralgia, Nervous Disorders and all Female Complaints.

SOLID PROOF OF THIS.

IT WILL SURELY CURE
 CONSTIPATION, PILES,
 AND RHEUMATISM,
 By causing FREE ACTION of all the organs and functions, thereby
CLEANSING the BLOOD
 restoring the normal power to throw off disease.
THOUSANDS OF CASES
 of the worst forms of the e terrible disease have been quickly relieved, and in a short time
PERFECTLY CURED.

PRICE, 51. LIQUID OR DRY, SOLD BY DRUGGISTS Dry or sent by mail.

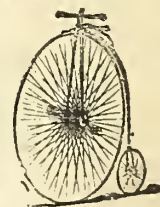
WELLS, RICHARDSON & CO., Burlington, Vt., and Montreal.

KIDNEY-WORT

BAXTER'S MANDRAKE BITTERS

THE ONLY
 VEGETABLE
 CURE
 FOR
DYSPEPSIA,
 Loss of Appetite,
 Indigestion, Sour Stomach,
 Habitual Costiveness,
 Sick Headache and Biliousness.

Price 25c. per bottle. Sold by all Druggists.



BICYCLES!

Royal Canadian, Howe, Premier, Columbia.

A number of good second-hand machines for sale. Send 3c. stamp for New Catalogue.

A. T. LANE,
 P.O. Box 967, Montreal.

A MILLION A MONTH THE DIAMOND DYES

Have become so popular that a million packages a month are being used to recolor dingy or faded DRESSES, SCARFS, HOODS STOCKINGS, RIBBONS, &c. Warranted fast and durable. Also used for making inks, staining wood, coloring Photos, Flowers, Grasses, &c. Send stamp for 32 colored samples, and book of directions.

WELLS & RICHARDSON CO.,
 Burlington, Vt., and Montreal, P.Q.

'A Young Girl's Wooing.'

BY E. P. ROE.

Author of "Barriers Burned Away," "His Sombre Rivals," "Without a Home," &c., &c.

356 Pages, 8vo.

Sent by mail on receipt of price, 50 cents.

ROSE PUBLISHING CO'Y,

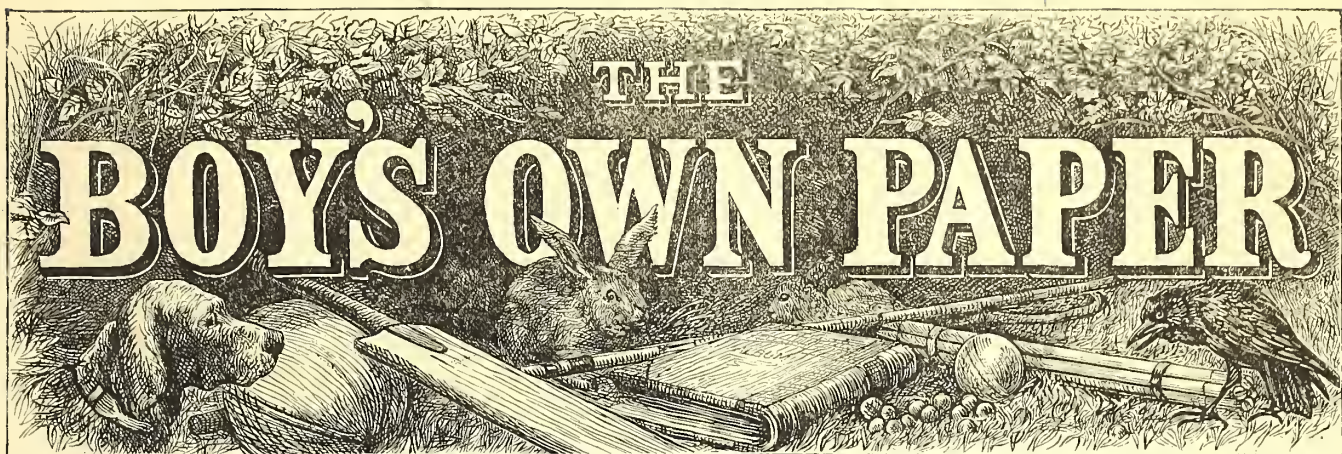
TORONTO, ONT.

Mention this Magazine.

N. P. CHANEY & CO.,

Feather and Mattress
 Renovators,

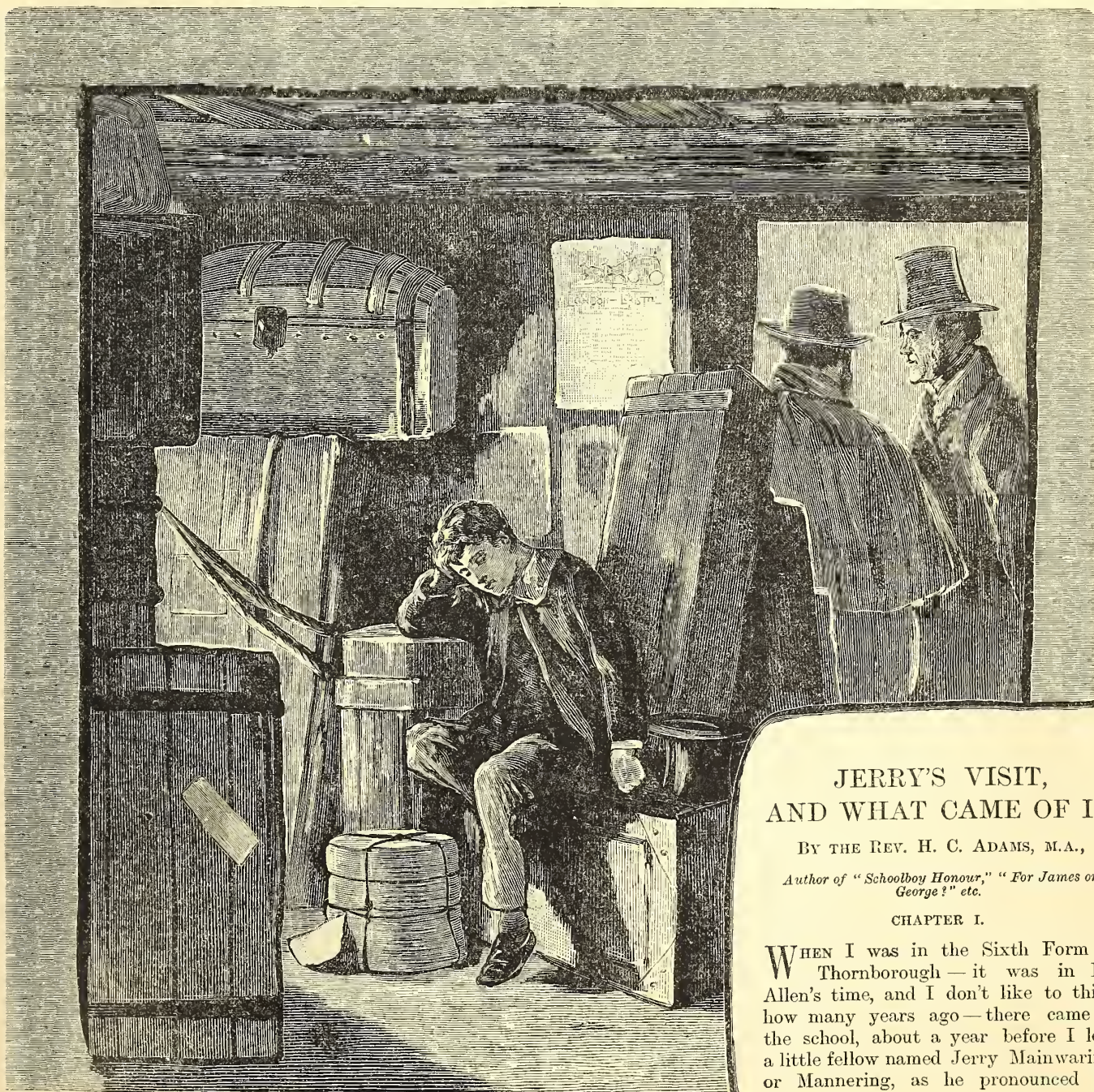
230 King Street East, Toronto.



No. 303.—Vol. VII.

SATURDAY, NOVEMBER 1, 1884.

Price One Penny.
[ALL RIGHTS RESERVED.]



JERRY'S VISIT, AND WHAT CAME OF IT.

BY THE REV. H. C. ADAMS, M.A.,

Author of "Schoolboy Honour," "For James or George?" etc.

CHAPTER I.

WHEN I was in the Sixth Form at Thornborough — it was in Dr. Allen's time, and I don't like to think how many years ago — there came to the school, about a year before I left, a little fellow named Jerry Mainwaring, or Mannering, as he pronounced his

"Leaning his head on his hand he fell fast asleep."

name. He was not more than ten years old, and consequently was almost the youngest boy in the school. But he soon made his way and became a prime favourite among us. He happened to sleep in my room, and was therefore my fag; and before the end of the half I had got to like him so much that I asked him to pass a fortnight of the summer holidays at my father's house, where he so took every one's fancy that we wouldn't let him go under a month. He had curly brown hair and a pair of merry black eyes, and was as sweet-tempered as he was handsome. He had plenty of pluck too. It was a sight to see him skim up into a high elm after a bird's nest, or leap our pony over Whalley Brook. We had had some scruple about letting him ride Sandy Bean; for Sandy, though he had plenty of go in him, was cross-tempered and given to bolt with the bit between his teeth, and none of my younger brothers were fond of mounting him. But Jerry leaped on his back as fearlessly as though he and Sandy had known each other for years, and the brute was as docile as a dog with him. My father was so delighted that he would have given him the pony, only there was no place where Jerry could keep it.

Well, it was about the middle of the third week in December, and the school was on the point of breaking up. The half-year's marks had been summed up and the prizes determined. Tomorrow was speech day and packing-up day too, and on the next morning we were all free to depart.

It was my last half, so that I had to take away not only my clothes, but my books, my cricket-bats, fishing-rods, writing-desk, pictures—everything that I had been collecting during my five years' stay at Thornborough. Jerry had been helping me, and it was getting near supper-time, when a letter was handed to him which had come by the evening post.

"From my father!" he exclaimed, as he looked at the address. "What can have made him write again, I wonder? I heard from him only the day before yesterday."

You must remember those were not the days of the penny post and of halfpenny postcards. A letter to Thornborough from London cost ninepence, and though Mr. Mainwaring was not more penurious than his neighbours, he would not be likely to write twice in three days unless there was some special reason for it. It was with some trepidation, therefore, that Jerry tore off the seal, with which letters in those days were usually fastened, and in doing so destroyed part of the outermost page, which had stuck to the wax. He read it through, at first hurriedly, then more carefully, and finally, after five minutes' cogitation, handed it over to me.

"Can you make out what it means, Winter?" he said. "I understand that papa has altered his mind for some reason, and I am not to go to Hampstead—not for the first part of the holidays, in any case, but to some gentleman's house somewhere else. But who the gentleman is, or where he lives, I don't know. The name and address were torn off, I suppose, when I opened the letter, and unluckily I threw the seal into the fire."

I took the letter and read it aloud. It ran thus:

"Belvidere House, Hampstead,
"Dec. 17, 18—.

"My dear Jerry,—I am sorry to tell you that I shall be unable to have you here during the holidays—during the first part of them, at all events. But my f * * * *, who resides, as I dare say you have heard me say, at Netherby * * * * ford, has promised to receive you. He is an elderly man and a widower, but he is exceedingly kind to boys, and from his near connection with me will be particularly cordial to you. His servant will come to meet you on the 19th, the day after to-morrow, at the White Horse Cellar, where the coach stops. I have no time to write any more, as I am very busy.—Your affectionate father,
"JEREMIAH MAINWARING."

"Well, Jerry," I said when I had finished reading, "what is it that you want to know?"

"Oh, several things," he answered. "Who can the gentleman be to whose house I am to go? What is his name?"

"That is torn off," I answered. "But he is evidently a very near connection. Have you a grandfather or an uncle living?"

"My grandfather is living," said Jerry; "that is, my mother's father, you know, not papa's. He is living—at least I never heard of his death."

"Ha! and where does he live?"

"I don't quite know, but I fancy at some place ten or twelve miles out of London. He was in business, I believe, but has retired."

"Ay; Ilford or Dartford, I dare say. Depend upon it, that is where you are to go."

"But I've never seen anything of grandpapa," objected Jerry.

"No, why should you?" I urged, for having taken up a theory I liked to maintain it. "You have been very little at home, you know, and I dare say that is the reason why your father wishes you to go there now, to make your grandfather's acquaintance."

"But in that case he'd go to grandpapa too," persisted Jerry, "and it's plain he isn't going there."

I could not deny that there was something in this argument. I had learned a good deal of Mr. Mainwaring's history from Jerry and other sources. He was a literary man, on the staff of the "Daily Argus," one of the leading London papers, and had worked hard to gain the position he occupied. His father, a clergyman with small means, had been able to render him very little help, and his wife brought him only a few hundreds as her portion. When she died, some seven years after their marriage, Mr. Mainwaring had given up his house and gone into lodgings. His boy, then a little more than six years old, was sent to a preparatory school at Parson's Green, and four years afterwards to Thornborough.

But, though living in lodgings at Hampstead, Mr. Mainwaring contrived to make the holidays pass very pleasantly for his boy. Sometimes they were asked to pass a week or a fortnight of the summer at Twickenham or Chertsey; sometimes he would take the boy to Margate, coming down for the Sundays, and leaving him under the charge of his old nurse, who had pleaded earnestly to be allowed to remain with her master as his servant-of-all-work. During the winter it was easier to provide amusements. There

was Exeter Change, and Astley's, and endless exhibitions of one kind or another, as well as Christmas parties, concerts, and other entertainments. Mr. Mainwaring had many friends, and they were all pleased to have Jerry for their guest.

On the present occasion I knew that Mr. Mainwaring had been more than usually anxious to ensure a pleasant holiday for his boy, for he had written to me urging me to stay a day or two in London on my way homeward and partake in the festivities he had arranged. It struck me as strange that he should all of a sudden have altered his purposes and, what was odder still, assigned no reason for doing so.

But the truth was he *could* not assign his reason for declining to receive his son. It was a secret to be told to no one. On the evening of the 16th of December, as he was engaged with his servant Dorothy in drawing up the programme of entertainments for Master Jerry's benefit, there came a hurried rap at the door, and Mr. Hardy, the editor of the "Daily Argus," entered the room.

"A word with you, Mainwaring—alone," he said.

Dorothy withdrew, and the editor went on:

"There is something brewing in Madrid—some plot of Buonaparte's. It is necessary that we should find out what it is."

"There are always rumours of that kind in circulation," said Mr. Mainwaring. "Some people seem to pass their lives in fabricating them."

"This is no fabrication," returned Mr. Hardy. "We have clear evidence that some political intrigue of no common magnitude is in operation. Some one must go to Madrid and learn the truth."

"And you want me to go, I suppose?" said Mr. Mainwaring.

"Yes, you are the man, the only man competent for the task. You know Madrid well, speak Spanish like a native, and have many friends in the city."

"But—" began Mr. Mainwaring.

"But there is no danger," interposed Mr. Hardy—"not what is to be called danger. Of course, if the French ambassador heard of your presence in Madrid and its purpose, you might run some risk of imprisonment or detention. But that would be the worst, and even that is not likely. You would go first to Lisbon, and then as an accredited agent from a mercantile house there to their correspondents at Madrid. There is no risk, believe me, and the pay will be unusually good."

"Well, if you make a point of it I must go, but how soon do you want me to start?"

"To-morrow; the Lisbon packet sails from the docks at two in the afternoon."

"To-morrow! Oh, that is too short notice. I cannot."

"Why? You only want clothes for a fortnight. The passports are already signed, and here is the Portuguese and Spanish money you will require."

"You take my breath away, Hardy. And there is my son, who is coming home the day after to-morrow for his holidays! No, really—"

"That has been thought of," broke in Mr. Hardy. "Our friend and fellow-labourer, Framley—he lives at Stratford, you know—he offers to entertain your boy till your return. He'll have nothing to complain of, for Framley, who is very

fond of boys, has a large Christmas party of them staying in his house, and there will be feasting and merrymaking without end."

"Well, Framley is a capital fellow, that is certain, and what must be must. I'll write to Jerry, then, at once, and tell him of the change. He'll think it odd, but that, I suppose, doesn't much matter."

"Not much," said the editor, with a laugh, as he took his leave.

Well, of course neither Jerry nor I had any suspicion of the cause of Mr. Mainwaring's absence, and after exhausting our ingenuity in all manner of conjectures—for the grandfather theory found little favour in Jerry's eyes—we gave it up, and addressed our attention to more practical matters connected with the affair.

"He says a servant is to meet the coach at the White Horse Cellar, but which coach is he to meet? There are two, you know," said Jerry.

"Yes, there is the Highflyer, which starts at six in the morning; that gets in about one o'clock, doesn't it?"

"I believe so; indeed I'm sure of it, for I went by it last summer. And there's the Eclipse, which sets out at ten and reaches London at five. By which of these am I to go? I have been by both."

"Doesn't your father say? No, he doesn't. Well, then, I suppose you can take your choice."

"In that case I shall go by the Eclipse," said Jerry. "It was pleasant enough going by the Highflyer last summer; but it's another sort of thing turning out on a bitter winter morning two hours before daylight. That is settled, then; I'll go and secure my place by the Eclipse."

The next morning, accordingly, Master Jerry, having made a comfortable breakfast and secured a front seat on the Eclipse, was conveyed up to London, where he arrived an hour or so after dark. He looked anxiously round him as the coach drew up in front of the famous hostelry of those days in quest of the servant who was to be his escort to the house of his, as yet unknown, host. No one coming forward, he descended from his seat, and having caused his portmanteau to be carried into the office, demanded of the bookkeeper whether anybody had called to inquire after "Mr. Mainwaring." A public schoolboy, however small, never condescends to the title "Master."

"Mr. Mannering," repeated the bookkeeper. "Oh, yes, there was a man—a gentleman's servant he looked—he came to meet the Highflyer, and asked whether Mr. Mannering had come by it. He seemed surprised at not finding him. He said he would call again. You had better go and wait in the inner office. I am going away for an hour now myself."

Jerry complied. The weather was cold and the wind sharp. He took refuge in a corner near the fire, where he was sheltered by a pile of boxes. Half an hour passed, and Jerry began to get very hungry, as well as very uncomfortable. He dared not go away to get any food for fear the messenger should return during his absence, and go away for good and all, in which case he did not know what would become of him. He read the bills and advertisements pasted against the walls until he knew them almost by heart; and at last, leaning his head upon his hand, he fell fast asleep.

Meanwhile two persons had entered the office and looked hastily round it, as though they expected to see someone waiting there for them. One of the two was a tall man, dressed in black, with spectacles, and having a shrewd, but somewhat sarcastic, expression of countenance. The other also wore a sad-coloured suit. He appeared highly respectable, but was plainly inferior in rank to his companion, and looked like a gentleman's upper servant.

"This is strange, Hampson," said the taller of the two. "Are you sure Mr. Jerome was to come to this house and at this time?"

"He was certainly to come to this house, Mr. Fenwick," answered Hampson. "The White Horse Cellar was the place named, and there is no other White Horse Cellar in London."

"Not that I ever heard of, certainly," said Mr. Fenwick. "And the time, are you sure about that?"

"I am not so certain of that," answered Hampson. "I don't think any precise time was named, but considering that he has no great distance to come, I made sure he would be here before this. But perhaps they will not allow him to come after all."

"Not allow him!" repeated the other. "Who will not allow him?"

"I was thinking of Mrs. Mannering, his mother, sir."

"Mrs. Mannering! she is not likely to forbid him, surely? She would hardly refuse anything that was likely to be advantageous to him. But this invitation to Netherby Park is the thing of all others most likely to promote his interests. And there is ten thousand a year at stake, remember."

"Well, I do not feel quite so sure, Mr. Fenwick."

"Not sure of what? Of her devotion to the boy's interests, do you mean?"

"No, sir; not that. But she may feel that some apology is due to her before she lets the boy go. Just think, Mr. Fenwick, what wrongs have been done her, what insults heaped upon her."

"True," returned Mr. Fenwick. "Sir Jerome is a hasty man, and cares little what he says when his passion is roused. And it was roused to the utmost by his son's marriage. During all the thirty years that I have known him, I have never seen any fit of passion like the one which came over him when he heard of Captain Mannering's marriage."

"So I have heard, sir, though I was away from the Park when it took place. But I never understood why it made him so angry. Miss Hartley was a lady by birth and education, and, I have been told, much admired."

"That is all true. But in the first place Sir Jerome had made an agreement with his neighbour, Mr. Woodrowe, that his eldest son should marry Miss Woodrowe—Lady Ashleigh that is—who was the heiress of his property, and in the next there was an old quarrel with the Hartleys. He fancied, among other things, that the old vicar, that's dead now, had attacked him in the pulpit. He chose also to believe—that I am sure was quite untrue—that Mr. Hartley threw his daughter as much as possible in the captain's way, in order that the match might annoy him."

"And he would never forgive the captain, sir, would he?"

"Never," returned Mr. Fenwick.

"When the captain's regiment was ordered to Holland to join the Duke of York's army, we tried to make up the quarrel, and urged Sir Jerome at least to take leave of his son before he sailed. But he wouldn't, and when the news of Mr. Jerome's death at Walcheren came, he never showed any sign of grief. What he may have felt I can't say, but he showed no feeling. It is a great wonder, I must say, that he has ever been induced to see this lad, though I am afraid no good will come of it when he does see him."

"It has been Miss Rosalie's doing, sir—mainly her doing, that is," said Hampson. "Sir Jerome has been getting very feeble for a long time past, and more dependent upon her every day. She watched her opportunity, and one day remarked to him that she was afraid the house was very dull and dreary, and she wished there was more to enliven it. 'Ay,' he said—I happened to be in the room, and heard it—'if I had some grandchildren, as Woodrowe has, to play about in the lawns and shrubberies, and fill up the vacant places at the table, it would be a little more cheerful.'"

"'You have some grandchildren,' she ventured to say."

"'Yes, but Henry's children are mere babies; the twins are not two years old and the baby not six months. They are too young for companionship with me. Woodrowe's grandchild is a fine lad of eleven or twelve, rides out with his grandfather, and carries his gun already, I'm told. Woodrowe quite dotes on him. He was here two days ago, and could talk of nothing else.'"

"Then Miss Rosalie ventured to say, 'You have a grandson, sir, very nearly the same age as Horace Ashleigh.'"

"She was going on, but he burst in with one of his furious attacks. 'No, Rose, I have no grandson of that age. The boy you speak of is a Hartley, not a Mannering. I have nothing to do with him or his. When his father married that woman he ceased to be my son. Don't talk to me of him.' Then he fell back in his chair quite exhausted. Miss Rosalie said nothing more, but presently Sir Jerome added, 'And from all I hear the boy is a genuine Hartley, without a drop of the Mannering blood in him—a whey-faced, sickly little milksop that can't even run about like other boys, but sits moping over his book by the fire all day. I don't want him here. He'd remind me of his mother too much to please me. Don't mention his name to me again, do you hear?' 'Very well, sir,' says Miss Rosalie, and that was all that passed. Is the boy very like his mother's family, do you know, sir?"

"I have never seen him," replied Mr. Fenwick, "but from what I have heard I think it likely that he is. The Hartleys, you know, were never a very hardy race. But what I have heard has been chiefly from Mr. Henry Mannering, and he is not very likely to speak well of them."

"No, sir, nor they of him, if it be true, as I am afraid it is, that Sir Jerome has made a will disinheriting his eldest son's family, and leaving the whole property to Mr. Henry."

"Yes, that's true enough, Hampson. I did all I could to dissuade him from making the will, and he nearly quarrelled with me about it. I should not speak of it, but he himself has made it quite notorious by mentioning it to his friends."

There may be a chance of his altering it now, though."

"How so, sir? I should be glad enough to think that. I was always fond of the captain, who was as true a gentleman as ever lived, and his wife is a sweet lady. But Sir Jerome isn't apt to change his mind."

"True; but as men feel themselves failing, they sometimes get compunctious, and Sir Jerome has sent to me for the will. One of my clerks took it down last week. I can't think what he can want with it, unless he means to add a codicil to it, or alter it."

"That was last week, was it, sir?" asked Hampson.

"Yes. I got the letter on Saturday, I think, and Stephens went down with the will to the Park the same day. Why do you ask?"

"I wanted to know whether that was before his last attack. That occurred on Thursday last. He had been out in his chair on the terrace, and, I suppose, stayed too long. He had more than once refused to go in; but he had hardly got back into his easy-chair when he fell out of it, in a fit of some kind. It was a long time before we could bring him round; and on the Friday he told Miss Rosalie to write to Mrs. Mannering, and ask her to send her boy for a fortnight's visit to Netherby Park."

"Which Miss Mannering was ready enough to do, I imagine?" said Mr. Fenwick.

"Well, no sir I don't think she was," replied Hampson. "She asked her father whether he felt well enough to receive a visitor, and whether he had not better ask Dr. Staines about it. I think she was afraid that the boy's appearance and behaviour would irritate Sir Jerome, and make him more unwilling to cancel his will than he was already, but Sir Jerome wouldn't have it. 'Staines be hanged,' he cried, 'I shall have who I like here! You have been plaguing me about doing justice to this boy for ever so long, and now I am going to do justice; and to do that I must see what he is like with my own eyes. I'm not going to take a lot of other people's palaver for gospel. Write at once, Rose, to Willborough; do you hear?' She did write, and the answer came that Jerome should be sent up on Wednesday by the coach to the White Horse Cellar, where somebody must be sent to meet him. Accordingly Miss Rosalie this morning ordered me to take the carriage and bring her nephew down from London."

"I am afraid you will not be able to fulfil her orders," said Fenwick. "It is nearly six o'clock—indeed it is more, it is a quarter-past six. We have been talking here for a good three-quarters of an hour. There may be a later coach from Willborough, but I scarcely think it. But here is the bookkeeper at last; he has been to his supper, I suppose. Can you tell us," he continued, addressing the new comer, "anything of a young gentleman who was to come up by coach, and be met here this afternoon?"

"A young gent about eleven or twelve years old?" inquired the man.

"Yes, about that age."

"There is, or was, just such an one," said the bookkeeper. "He came in just as I was leaving. I sent him into the inner office out of the cold, and there he is now. I can see him in the corner there by the fire. Hallo, sir!" he added, step-

ping into the inner office, and giving Jerry a shake, "here are two gentlemen wanting you."

Jerry roused himself from his slumber, and came out to meet his visitors, who looked at him in evident surprise.

"Is your name Mannering?" asked Mr. Fenwick, presently.

"Yes, sir. I am Jerry Mainwaring," answered the boy. "Have you come to meet me? I expected some one, but I thought he must have forgotten me."

"We have been here three-quarters of an hour," said Mr. Fenwick, "but we did not know you were in the inner room. This is Mr. Hampson," he continued, "your grandfather's house-steward, who will take you down with him to Netherby."

"All right, sir. I am going to my grandfather, then, as Winter said," he thought. "That is my box," he added, aloud, pointing to a trunk with the initials "J. M." marked on it in brass nails. "Is there a coach down to Netherby, or have you a gig here, or what?"

"Your grandfather has sent his carriage for you, Mr. Jerome," said Hampson, somewhat stiffly. "I will order the footman to put your trunk on the box beside him. We had better set off at once, as it is late, and your aunt may get anxious. We must wish good-night to Mr. Fenwick, and then we will go."

Jerry shook hands with the tall gentleman, and stepped into the carriage, the appearance of which, as well as of the liveries of the servants, somewhat bewildered him. Mr. Hampson followed, and then they drove off.

"Odd, this," he thought. "I never knew my grandfather kept his carriage, and two livery servants, and a house-steward. I fancied he was rather poorly off. But I have no objection, I'm sure. And this fellow—Hampson, didn't the tall chap say his name was?—he looks a tremendous swell; but if he's my grandfather's servant, I suppose he'll be civil, at all events. I say," he said, aloud, "can you tell me how my grandfather is, Mr. Hampson?"

"He is a little better, Mr. Jerome—"

"I am always called Jerry," interrupted the boy—"please call me so."

"I should not like to take such a liberty, sir," said the steward, "and Sir Jerome would not approve it either. But, as I was saying, your grandfather is a little better; but of course you are aware that he is in a most anxious state, and the doctors speak very doubtfully of his rallying."

"Dear me," said Jerry, "I'm afraid I shall be very much in the way if he is so ill. I don't think my father would have liked—"

"Do not make yourself uneasy, sir. I knew your father well, and am quite sure, if he knew all, he would quite approve of your visit under present circumstances."

"It must be all right," thought Jerry, "if I am going to my grandfather's house, and this man knows my father. But who on earth can Sir Jerome be, and what can he be to me? And I think he said something about my aunt just before we started. Who's she, I wonder? I never heard of her before. I should like to know something about her too. How is my aunt, Mr. Hampson?" he continued.

"Miss Mannering is very well, sir, and very anxious to see you. It has been a subject of great regret to her that hitherto she has never met you."

"That is very kind of her, I am sure,"

said Jerry. "I wonder why I have never seen her. I don't know what there was to prevent it."

"I perceive, sir," said Hampson, in a tone of reserve, "that you have not been made acquainted with the peculiar circumstances of your visit to Netherby Park. It would hardly be proper, therefore, for me to speak of them. You will learn them, no doubt, on your arrival from Miss Mannering herself."

He relapsed into silence, and Jerry made no further attempt to obtain information. The carriage had by this time cleared not only the city itself, but the long straggling rows of houses and cottages which succeeded to the streets. They were now travelling over the open country, and the light from the lamps fell on the hedgerows and trees and fields, varied every now and then by a roadside inn or a country village. They must have gone, he reckoned, more than ten miles before they paused for a minute or two in front of two high stone pillars, flanking a massive iron gate, with an Elizabethan lodge adjoining. A woman came out of the latter and opened the gate, when the carriage resumed its way. Jerry sat in ever-increasing wonder as they drove through a spacious park with clumps of large trees overshadowing broad stretches of turf, varied by glimpses of ornamental water. Presently they entered a stately avenue of beech-trees, at the end of which appeared an ancient Elizabethan house, surrounded by terraces and gardens. The footman alighted and rang a bell, when the door was almost immediately opened, and a servant out of livery appeared.

"Has Master Mannering arrived?" was his inquiry, and it being answered in the affirmative, he added, "He is to go up to Miss Mannering's room immediately. She and Mr. Henry are waiting for him there. You are to go with him, Mr. Hampson."

"Mr. Henry!" exclaimed Mr. Hampson. "Is he here, Hawkins?"

"Came two hours ago," was the answer; "and he ain't here for any good either," he added, in a low tone, which only Hampson and himself could hear.

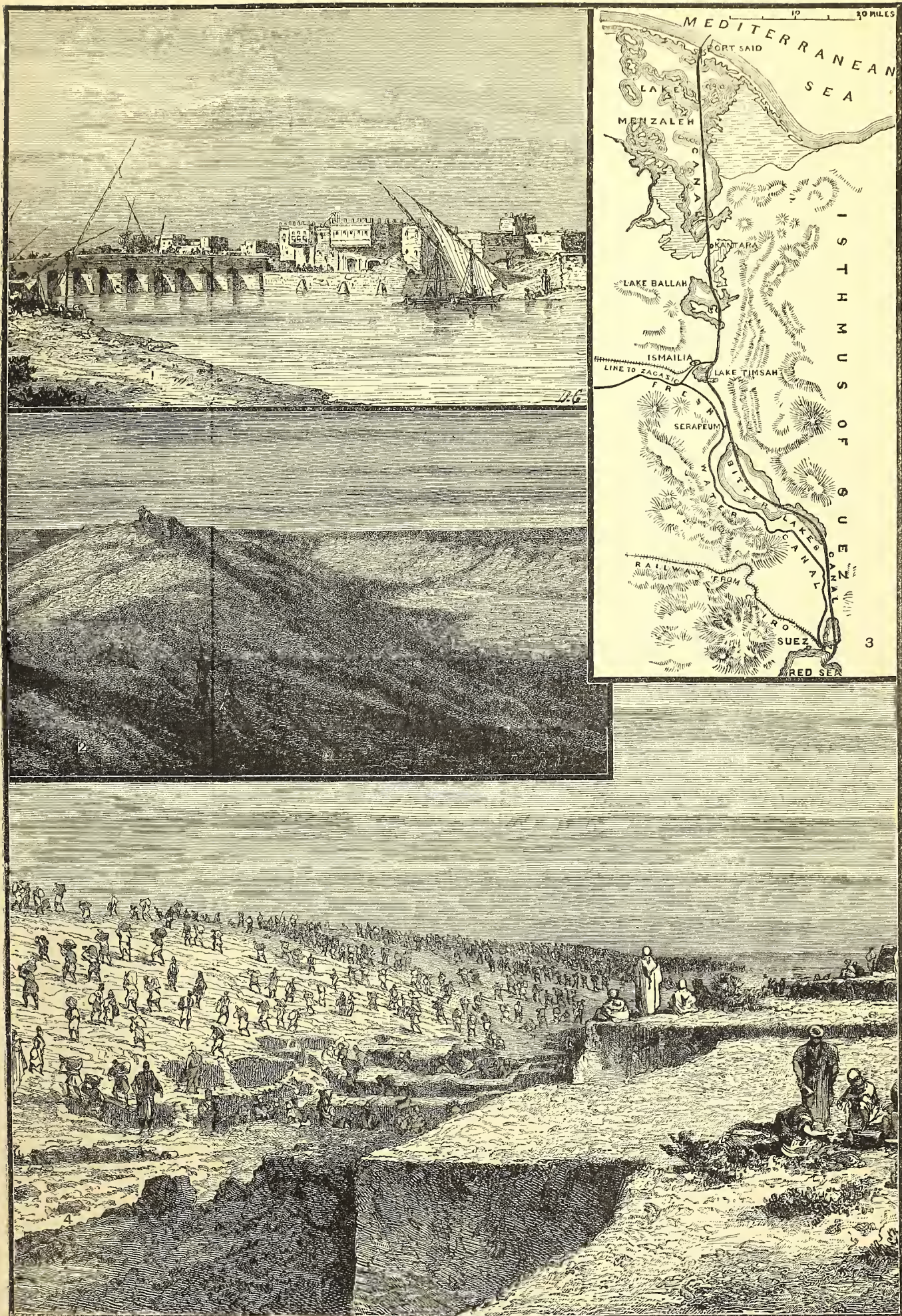
(To be continued.)

THE GREAT CANALS.

I.—SUZ.

THE world owes much of its advance during these later years to the improvement in the means of communication between its distant countries; and among those who have done most to facilitate commerce by shortening its roads there is not at present a more famous man than the projector of the modern Suez Canal, Ferdinand de Lesseps.

He was born at Versailles in November, 1805. His father and grandfather were in the French diplomatic service, and he is, or was, a diplomatist by profession. He began his official life when he was twenty-one years of age in the French Consulate at Lisbon, and for the next four-and-twenty years continued in the employ of his country. He went to Tunis in 1828, and to Cairo in 1833, remaining there for five years, and gaining that thorough acquaintance with things Egyptian which he afterwards turned to such good account. Subsequently he held appointments at Rotterdam, Malaga, Barcelona, Madrid, Berne, and Rome. His diplomatic experience was thus very varied. His missions were nearly always successful, and it was the knowledge of his previous career that caused the British



The Suez Canal.

1. Zagazig, on the Fresh Water Canal.

2. The old Canal.

3. Map of the Canal.

4. Fellaheen at work cutting the Canal.

Government, who foresaw the complications to which the Suez Canal would give rise, to look upon Lesseppe's great work as principally a political scheme.

He began his investigations in 1849, but it was in 1854 that he first brought forward his detailed suggestions for cutting through the Isthmus, and on November 30 in that year he obtained a firman from Saïd Pasha giving him the right to construct his canal. This, however, was not the first time that such a canal had been designed or constructed. Strabo and Pliny tell us how the first canal from sea to sea had been dug out by Sesostris before the Greeks encamped round Troy; and Herodotus, to bring the date a little nearer to us, fixes the beginning of the work under Pharaoh Necho six hundred years before the Christian era. Who began it and who finished it, whether Darius Hystaspes the Persian, or the Ptolemies, matters but little. The fact remains that the canal existed, that it was ninety-two miles long, that its width varied from thirty-six yards to fifty-five yards, and that its depth varied from five to ten yards. It was not a straight cut, but wound along the series of valleys on the eastern bank of the Nile, between Suez and Zagazig, then known as Bubastis. Gradually it was silted up by the sand, and for a time remained useless. Trajan, however, had it cleared out. For a few years it was navigable, and again the sand choked it.

Again it was cleared out by Amru, who in the early Saracenic days led the army of the Caliph into Egypt, in 639, and under the rule of the Sultans the canal of the "Prince of the Faithful" remained open until 767, when once again the silt obtained the mastery. When the French invaded Egypt in 1798 Bonaparte noticed the bed of the old canal, and took steps to have it again dredged out. The Isthmus was surveyed by his engineers, and it was they who reported that difference of thirty feet between the Red Sea and the Mediterranean which was so often quoted as rendering the unlocked canal impossible, and which was found not to exist when in 1847 Robert Stephenson, Talabot, and Nigrelli made the international survey on behalf of England, France, and Austria. These three engineers had been specially sent to report on the means of communication across the Isthmus. There were two schemes under consideration, the canal and the railway, and the triumvirate, on business grounds, reported in favour of the latter. De Lesseppe took the matter up where they had left it, but instead of cutting a canal obliquely to the Nile, as they had proposed and as the ancients had done, his plan was to go straight across country and have artificial harbours at each end.

The difficulties in digging the canal were small compared to those in floating the company. There was the report of the engineers giving preference to the railway, there was the avowed opposition of the Turkish Government, and there was the coldness of nearly every Government of Europe, who followed the lead of Great Britain, and looked upon the project as being, like that of Napoleon I., a daring political manoeuvre on the part of the patriotic and accomplished diplomatist. It was not till 1859 that the company got fairly under way. The Viceroy took two-fifths of the shares, the rest being principally subscribed for in France, and for a rent of 15 per cent. on the earnings the "Compagnie Universelle du Canal de Suez" received a lease of the land for ninety-nine years—as many years as the canal is miles in length—the lease being under the conditions usual in England, so that at the expiry of the term the property reverts to the freeholder. The original capital was £8,000,000, but this was afterwards increased until the cost of the work may be set down as £19,000,000, plus whatever may be looked upon as the value of the additional lands lent by the Khedive and the forced labour of his people.

The first engineering difficulty was the

supply of fresh water for the army of workmen, as along the line of the canal there were no springs or streams. This necessitated the formation of the freshwater canal, forty feet wide and nine feet deep, from Ismailia, on Lake Timsah, to Zagazig, and thence along the bed of the ancient waterway of the "Prince of the Faithful" to Suez; while from Port Saïd to Ismailia there was laid an aqueduct of iron pipes.

The drink difficulty having been disposed of, the cutting of the ship canal began. This starts from the Mediterranean at Port Saïd, and after passing through the shallow lagoon of Lake Menzaleh, where it has a depth of six-and-twenty feet, runs for eleven miles through an elevated plateau some fifteen to thirty feet above sea-level until it reaches the lake of Abu Ballah. Another spell of eleven miles takes the canal to Lake Timsah through another cutting in the rising ground, which is here at times from seventy to eighty feet above the water. For three miles is the shore of Abu Ballah skirted, and then passing through the Toussoum and Serapeum cuttings, the stream runs into the Bitter Lakes. These Bitter Lakes—the most difficult part of the line, by-the-by, the bed along them having had to be scooped out with the steam-dredges—extend for some four-and-twenty miles, and then thirteen miles of the Chalouf plateau had to be cut through before the twelve miles of level plain round Suez could be reached.

The construction of the harbours was a very tedious task. That at Port Saïd was formed by two converging breakwaters, built of immense blocks of cement, each block weighing two-and-twenty tons, and consisting each of two parts of desert sand and one part of French lime. The blocks are not laid in masonry, but thrown down anyhow, and form rough breakwaters, of which one, the western, is much the longest. The alluvial deposits brought along the shore by the drift of the current due to the north-west wind, are stopped by the ridge of stone, and the mouth of the harbour, for the present at least, is kept free.

It is difficult to say which section of the line gave the engineer the most anxiety. Perhaps that through Lake Menzaleh afforded as much as any, for here the workmen had not only to contend with the mud of the lake, but with the waves of the sea. In many other sections also the task was most embarrassing. The steam dredges had to be kept constantly at work throughout; and even now it is no easy task to keep the channel from silting up. Into the Gnie cutting it is calculated that forty thousand cubic yards of sand drift every year: while into the Serapeum cutting observations have shown that there is an annual drift of two hundred and seventy thousand.

The sluices were first opened by the Prince and Princess of Wales on March 25, 1869, but the formal opening did not take place until November 16, fifteen years after the firman for the construction of the work had been obtained. One of the greatest naval displays of modern times then took place. Nearly every nation in the world was represented in the harbour of Port Saïd; and, amid the blessings and prayers of Christian and Mohammedan—from separate platforms erected specially for the different creeds—the Empress of the French led the way down the canal, followed by the Emperor of Austria and other great personages.

At first the canal was little used, but now the amount of shipping that passes through is so great that it is not large enough for the traffic. Out of every ten ships that use it, eight are under the British flag; and it was the importance of the canal as one of the main roads to India which led to the purchase of the Khedive's shares by this country, and to our intervention in Egypt, which on August 19, 1882, brought into it the six-and-twenty vessels that formed Lord Wolseley's expedition. Not even at the opening did the

canal hold a finer fleet than when the seven huge ironclads—the Alexandra, Téméraire, Agincourt, Northumberland, Minotaur, Superb, and Sultan, totalling amongst them a measurement tonnage of over sixty-eight thousand tons—led the nineteen "troopers" into Lake Menzaleh, those same "troopers" being the pick of our ocean-going mail-boats. It is now, however, somewhat ancient history how the Egyptians were led to believe that Aboukir was to be bombarded, and were surprised to find the fleet, with Sir Garnet Wolseley on the Salamis, Admiral Seymour on the Helicon, and the Duke of Connaught on the Orient, steam past Port Saïd and round into the canal on their way to Ismailia—a surprise by no means diminished when they found that Admiral Hewett had simultaneously seized the southern outlet, and that from end to end the canal was lost to them.

By sailing vessels the route by the canal is not much used, but with steamers it is very popular. The saving in the distances to Indian and Chinese ports is very great. From Plymouth to Bombay by the Cape, the steamer route is 10,417 miles; the route by the canal shows a saving of 4,417 miles! To Galle, 10,160 by the Cape, there is a saving of 3,661 miles; to Calcutta, 11,300 by the Cape, the saving is the same; to Singapore, 11,490 by the Cape, there is a saving of 3,480 miles; to Hong Kong, 12,930 by the Cape, to Shanghai, 13,730 by the Cape, and to Yokohama, 14,490 by the Cape, there is in each case a similar saving of 3,480 miles. In the Australian routes the savings are much smaller. From Plymouth to Melbourne is 11,890 miles by the Cape, and 11,939 by the canal, thus showing a saving of only 851 miles; to Sydney, by the Cape, is 12,440 miles, by the canal it is 11,590; to Wellington, by the Cape, is 13,360 miles, by the canal it is 12,510—back by the Horn it is only 11,670. These are *exclusively* steamer distances; the distances traversed by sailing vessels are in all cases greater, sometimes by as much as 2,000 miles, but, for reasons already given, these need not be taken into account.

(To be continued.)

ARMOUR IN HISTORY AND ROMANCE.

CHAPTER IV.



Fig. 19.

Knight with ailettes, vambrace, and rerebrace.

PLATES of metal to relieve the muscular obstruction and grating of chain-armor were gradually introduced in this country in



Fig. 20.
1327-1350.—Edward III.



Fig. 21.
1350-1364.—Edward III.



Fig. 22.
1350-1364.—Edward III.



Fig. 23.
1350-1364.—Edward III.



Fig. 24.
1364-1380.—Edward III. and Richard II.



Fig. 25.
End of Fourteenth Century.
Richard II.

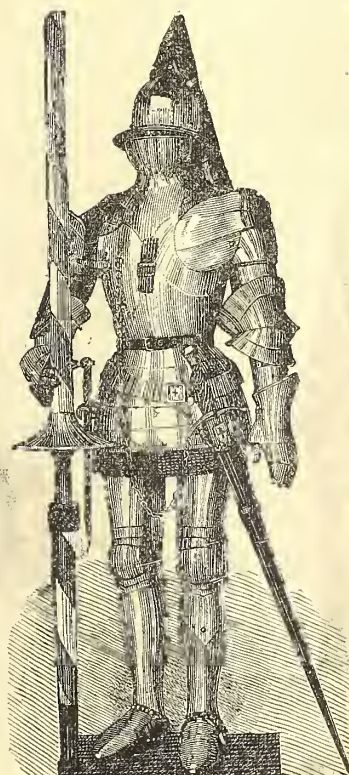


Fig. 26.
1380-1422.—Richard II., Henry IV.,
Henry V.

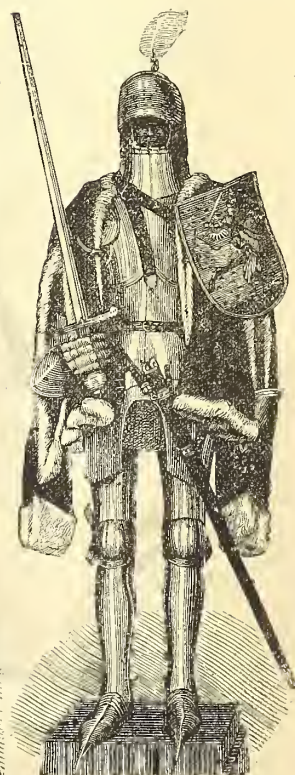


Fig. 27.
1422-1461.—Henry VI.

the reign of Edward I. Fig. 19 is from the effigy formerly in Gorleston Church, Suffolk, and represents a knight of the Bacon family, whose cognizance is depicted on the shield.

It illustrates an interesting example of the transition from chain-mail to plate-armour. Notice on the right arm from the shoulder to elbow is a plate called the vambrace; also on the inside of the arm from the pit to the wrist is another plate called the rerebrace; over the elbow is a cap called couiere; on the top of the arm and the inside of the elbow are two circular plates called roundels, invented to protect the joints of the arm when the chain-mail was removed from underneath to give greater freedom of action. This brass also exhibits a curious fashion in armour, which lasted for many years—that of having little wings or ailettes of metal attached to the shoulders. These

were worn both in battle and in the lists, and were generally emblazoned with a cognizance. In our cut the cross of St. George is depicted on them.

The reigns of Richard I. and John exhibited for the first time heraldic cognizances, fixed designs being appropriated by individual families. They were emblazoned on the gonfalon, or little flag on the shield; also on the jupon, which was a tight-fitting tunic, hence the term "coat-of-arms." Edward the Black Prince's tunic, emblazoned with the arms of England and France, is still hanging over his tomb in Canterbury Cathedral, as probably you may have seen.

The cyclas during fighting would obviously get slashed and torn to ribands, and present an appearance of which the knights would be proud, as showing they had been in action. The heraldic artists of the period designed

these torn clothes into mantling and lambrequin, of which Fig. 22 is a fancy-dress example. The helmet takes the form of the salade, of which we have more to say.

Now approaches the interesting period of plate-armour. From the description already given of Charlemagne and his staff, the wealthy seem to have had even then part plate-armour. The invention of entire suits of this armour appeared in Italy about the year 1315, and the fashion spread gradually to England. The arms and legs, as we have shown, had the first plate-armour. Then a helmet that covers the head succeeded the iron cap.

Fig. 23 shows in the helmet an opening turning on a hinge called aventaille; the body is covered with a maseled or pourpoint pattern; and the shoulders, elbows, knees, and boots are of plate-armour.

(To be continued.)

SCHOOL AND THE WORLD.

CHAPTER VII.



"Tommy could see the first was a boy, the second a man."

TOMMY was another boy again; the load was off his heart, he felt as if he did not care what might happen now. And before long something did happen.

He had nearly reached the corner of the corridor when he heard a door in the distance creak.

His heart gave a jump; he had not thought of danger on his way to Soady's room, he was too full of his trouble. But now he was alive to the slightest sound.

He backed into a doorway, crouched down, and waited. Perhaps it might be robbers; perhaps the Doctor or some master has found his empty bed and was looking for him.

Something white appeared round the corner. Tommy's heart almost stood still. Then following the white figure came a black one. In the dim light Tommy could see that the first was a boy, the second a man. The odd thing was that neither seemed to take any notice of him; from where he crouched he could have touched them as they passed, but they went steadily on. Not that Tommy had any idea of touching them, he was much too frightened.

Directly they passed him he bolted for his room. He forgot all about making a noise now, and as he took a flying leap into bed he woke two or three sleepers. At the same time there was a strange sound in the distant corridor, then came silence.

"What's the row?" asked Featherstone, sleepily. "Are they having a bolster match?"

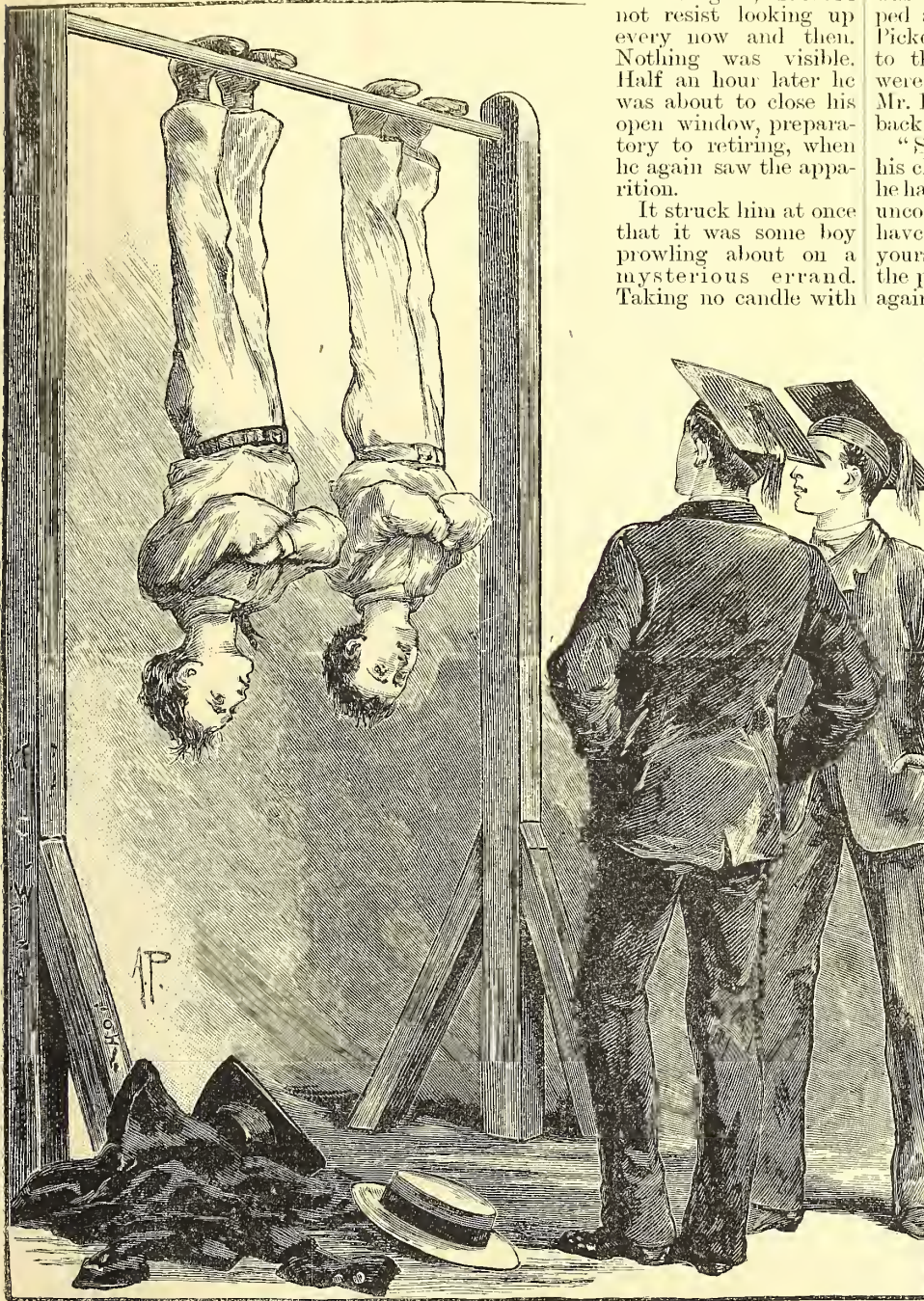
"It's a ghost!" said Tommy.

"Whose, you young idiot? Why, where's Simpson?"

Simpson's bed was empty, but his absence was not long unaccounted for. There was a sound of feet outside, and in a minute or so Simpson appeared, with nothing on but his trousers and night-shirt. Accompanying him were Mr. Pickering and Melhuish.

"Now go to sleep all of you," said the master. "Thanks, Melhuish, I needn't keep you out of bed. Good night."

"Hullo, Simpson! Where have you been?" inquired Featherstone.



"They stuck to it like grim death."

to work again, but could not resist looking up every now and then. Nothing was visible. Half an hour later he was about to close his open window, preparatory to retiring, when he again saw the apparition.

It struck him at once that it was some boy prowling about on a mysterious errand. Taking no candle with

was concealed, Simpson hesitated, stopped and would have fallen had not Mr. Pickering caught him. The noise brought to the door Melhuish and Soady, who were wide awake, and Melhuish helped Mr. Pickering to take the mystified boy back to his room.

"So, my young Tommy," said Soady to his chum, to whom he was recounting all he had heard about it, "you see you had an uncommonly close shave last night. If you have many more such shaves you'll cut yourself. So don't you go cutting about the passages in the middle of the night again."

"All right; I won't," said Tommy. "So they think Simpson stole his own money, do they?"

"Don't know; the Doctor seems to think so, from all I can hear. Oh, here's a nuisance! if this isn't Lang coming! You run away, Tommy, and practise for the athletic sports. If you don't pull off something I shall take it out of you."

It was indeed Lang who was approaching, and if ever a boy's look betrayed his anger his did now.

"Soady, you're a beastly sneak!" he began. "You told the Doctor that I was in the Rummage-room yesterday."

"You'd better keep a civil tongue in your head if you want me to take any notice of what you're saying," retorted Soady.

"A civil tongue! It's easy enough for you to talk. You think that because you're the bigger and could lick me that I'm going to let you do what you like, but I shan't. I tell you you're a beast of a sneak, and you can make what you like of it."

Soady hesitated for a moment. He felt inclined to prove to Lang he was correct in one particular, at all events, that he could lick him if they had a fight. But at this moment Garland passed close by, and, hearing the row, stopped to see what was the matter. Soady, on seeing him, dropped his hands. He felt it would be a mean action to lick Lang for what he had said in ignorance of the truth, and he could not do a mean action with Garland looking on.

"I say, Garland, come here!" he cried. Garland walked up. "What do you want?"

"Lang here has been slanging me because he says I told the Doctor he had been to the Rummage-room lately. I didn't tell the Doctor; Mr. Pickering did."

Soady proceeded to explain how the mistake had arisen.

"That's clear enough," said Garland. "I can't see that any blame attaches to you. What do you want me to do?"

"Tell Lang what he ought to do now that he has been slanging me without any reason."

Garland looked at Lang for a moment. "I don't think that's necessary," he said, quietly. "I'm quite sure Lang knows the right thing to do as well as I do."

"Been trying to find my money," was the sleepy reply.

"What money, you young Cræsus?"

"Never you mind," returned Simpson, who now remembered the Doctor's caution to keep his tongue still.

CHAPTER VIII.

THE mysteries of the night were cleared up next morning. It seems that Mr. Pickering, who had a bedroom on the farther side of the quad, happened to be sitting up late that night, hard at work on an edition of Juvenal that he hoped some day to publish. Happening to glance up for a moment, he fancied he saw a figure cross a window of the opposite wing.

He watched for a minute, but there was no reappearance. He settled down

him and kicking his boots off, Mr. Pickering rapidly ran down the corridors, and then hid in a half-open doorway.

He had not to wait long. A boy came slowly walking along, so naturally and unconsciously that it was easy to guess that he was walking in his sleep. Mr. Pickering followed him to see where he was going, for he at once recognised the boy as Simpson, the loss of whose money had occasioned the excitement of the previous day. Mr. Pickering knew the strange things often done by somnambulists, and how they totally forgot what they had done when asleep, so he felt some curiosity to see whether Simpson was about to hide some more money and then announce next day he had lost it.

But the master's curiosity was not destined to be satisfied. Not long after he had passed the spot where Tommy

There was a slight emphasis laid on the "knows." Garland walked away now, thinking it would be easier for Lang to apologise if a third person were not present.

Lang's better nature triumphed for once; he told Soady he was sorry, and asked him to let it all drop. Soady was only too delighted; he hated having rows with fellows because it was "such a lot of trouble to remember that you had quarrelled with a chap, and if you hacked him at football he was sure to think you did it on purpose."

"Tell you what, Lang," he said, "nobody thinks you had anything to do with that business, of course, but the best way of satisfying everybody will be to find out who did take Simpson's cash. Now you leave it to me, I'll find out, don't you fear."

"Do you suspect any one?"

"I've got my eye on some one; I'll let you know if I find anything out. Don't you tell any one."

With this superfluous remark Soady ran off to find Tommy and consult with him.

Tommy was discovered in the gymnasium hanging by his toes from a rather high horizontal bar. He had let himself

down all right, and was hanging splendidly, but for the life of him he couldn't get back to the bar again.

"Wonder what his mother would say if she could see him?" thought Soady. "Hullo, what's young Featherstone up to?"

That young worthy was standing beside Tommy, but making no effort to rescue him from his dangerous position. On the contrary, he was busily employed in picking up the contents of Tommy's trouser pockets which had emptied themselves on to the ground beneath.

"Young varmint!" ejaculated Soady, mentally. At the same moment Featherstone felt a heavy hand on his arm, and Tommy was landed on the ground right end uppermost.

"Why didn't you help him down, you young beggar?" demanded Soady.

"Please, Soady, he was seeing how long he could keep up, and I was only picking up his money for him so that it shouldn't get lost."

"What a cram!" exclaimed Tommy. "I was just tumbling off and he wouldn't help me."

"Let's see how long you can stay up," said Soady to Featherstone, putting him on the bar.

"Oh, please, Soady, let me down! I'm giddy!"

"You'll get over that," was the unfeeling remark.

"Oh, please, Soady, let him go."

"Nonsense, Tommy, up you go too. Sixpence to the one who hangs on longest."

They stuck to it like grim death, Soady watching them to catch them if they fell. At last Featherstone gave way and was helped down. Tommy took the sixpence.

"Come along to Mother Shipton's," said Tommy to the other youngster, "we'll have some truck."

"Off you go," said Soady. He watched the two run off with considerable relief. Featherstone was not at all a bad little chap, and it would do Tommy worlds of good if he would chum up with some one his own age, and go in for sports more. Soady was not good at classics and mathematics, but he had a keen feeling for others, and more judgment than many far cleverer than he as to the best thing to be done with a boy to make him turn out as a boy should; not a clever rascal, but a good fellow, whatever his attainments might be.

(To be continued.)

THE ADVENTURES OF AN AIDE-DE-CAMP.

I.—THE WRECK.

THAT the extraordinary adventures of General Haldiman's aide-de-camp have never been used as the basis of a romance is perhaps due to the fact that they form a perfect story of themselves. They need no embellishment: the characters are there, the incidents follow each other in admirable order, there is a definite plot, the one object is pursued throughout, and the story ends, as all such stories should end—in that object being attained. Under these circumstances a preface is hardly required, and so, without further ado, we give our summary of Captain Prenties's official report, published in 1782.

In the late autumn of 1780 General Haldiman, commander-in-chief of the troops in Canada, finding it necessary to communicate with General Clinton, then fighting Washington in front of New York, selected Captain Samuel Walter Prenties, of the 84th Regiment, to be the bearer of his despatches—or, rather, one of the bearers, for the intelligence being of great importance, the despatches were sent in duplicate, Captain Prenties taking one copy, and Ensign Drummond, of the 44th Regiment, taking the other. A smart brigantine, the *St. Lawrence*, was then at Quebec loading with timber, or lumber, as it is locally called, and in her Captain Prenties secured a berth. Ensign Drummond went on board a schooner bound also for New York, and the two vessels started down the river together on the 17th of November.

Contrary winds kept them in the river for some days. The cold weather set in, and ice began to form along the banks. Before the open sea was reached the *St. Lawrence* sprung a leak, and the pumps had to be kept constantly going on board of her. The schooner also was much knocked about, and the ice began to cling round the ships.

The *St. Lawrence* carried six passengers, and the officers and crew numbered thirteen. The captain, though plausible enough on shore, proved outrageously violent at sea. He seemed curiously excited at the discovery of the leak, and after trying his best for a

time to check the rising water, retired to his cabin and drank himself into senselessness. The second mate followed his example, and the crew altogether seemed a very miscellaneous lot, and under little restraint.

The water continued to rise in the hold, and not long after the captain had retired the crew refused to work the pumps any more. The cold was intense. The gale was raging heavily. The brigantine appeared to be gradually settling down, and matters looked so hopeless that there was really some excuse for the decision of the men. As, however, the water, when the pumping ceased, began to gain at an alarming rate, Captain Prenties went amongst the crew and persuaded them to continue at the pumps a little longer. He had some wine of his own on board, and this he served out to them at the rate of half a pint per man per hour. The gift of the wine had such an effect on the men that the water in the hold was soon reduced to three feet, and at this depth it was kept for some hours.

On the following morning, that of 2nd December, the gale increased, a snowstorm came on, and in the thick of the storm the schooner went ashore on Coudres Island. The people on the brigantine could render her no assistance, for the snow fell so fast that they could not see for any distance round them. To keep up communication between the vessels guns were fired at half-hourly intervals. Suddenly the answering reports ceased. The schooner had gone down with all on board!

The storm continued, and the first mate, on being appealed to, guessed the *St. Lawrence* to be near the Magdalen Islands, a small group of rocks to the north of Cape Breton. In a couple of hours the roar of the breakers was heard through the blinding snow, and the rocks were shortly afterwards sighted a few hundred yards away. The ship was running before the wind under close reefed foretopsail, and it was no easy task to steer her clear of the "Dead Man." The dangerous barrier was, however, passed in

safety, as were also the scores of other rocks that bordered the narrow channel through which the vessel drove.

At five o'clock the next morning a huge wave struck aft, drove in her sternpost, carried away the deadlights, and poured into the cabin. The crew stopped working the pumps, expecting the ship to founder; all the hatches on the deck were frozen down, and the passengers, finding nothing else in the after hold, attempted to cank the leaks in the stern with slices of beef. The captain was asleep, the crew were completely tired out with the constant work and the cold. The wind blew with ever increasing strength and keenness, the snow fell thicker and thicker, and the ropes and spars were one mass of ice. Captain Prenties went to the men, and pointing out that the waves were shorter and breaking higher, thereby showing that they were not far from land, prevailed on them to make one more struggle to keep the water down. The crew consented, but the plungers proved immovable. The pumps had frozen during the interval of rest!

The crew then left the deck, over which the icy water swept, and, steered by the only man that dared brave the storm, the *St. Lawrence* drove on to her doom. Her timber cargo saved her from sinking, but the water in her hold had made her so crank that the only way to prevent her turning over was to keep her dead before the wind. After a time the steersman saw a gull swoop past through the snow, and then some ducks came by, and thus he knew he was nearing land. Then the snowstorm cleared away, and before him he saw the precipitous cliffs of some rock-bound coast.

The captain, who had now awoke, recovered sufficiently to enable him to interfere with the working of the ship. He ordered her to be brought to. In vain it was explained to him that the manœuvre would throw her on her beam-ends. He insisted on having his way, and the crew went to the braces. He gave the word of command. But

the ropes refused to move; they were frozen into the blocks as hard as iron.

On went the brigantine straight for a fringe of breakers about three miles from the land. As they neared them the crew waited for the crash to be thrown into the icy sea. With one slight graze, however, the *St. Lawrence* leapt through and flew along straight towards a little beach between a gap in the precipices. When she was within fifty yards of it she struck on the sand.

There was only one boat on board, and this was frozen in so hard that it had to be chopped out, and the waves were thundering so angrily on the beach that only six men dared try their fate in attempting to land. These were the first mate, two seamen, Captain Prenties, his servant, and a boy passenger. When the *St. Lawrence* struck, the aide-de-camp had gone to his cabin, wrapped up his papers and despatches in a handkerchief, and tied them round his waist. His servant picked a bag containing one hundred and eighty guineas out of his trunk for him also to take with him, but the captain, seeing them no use for money, declined it as an incumbrance, and gave it to the man, who immediately fastened it round his waist, as his master had done the despatches.

Seizing a hatchet and a saw, Prenties jumped into the boat, in which were the mate and the two men. The servant followed, and then the boy tried. As he jumped, however, the boat lurched, and the poor little lad fell into the sea. After much effort he was saved and pulled on board, and then the boat left the ship and was swept on to the land. Once there, it was evident that to return and save any of the others was impossible. The wind was blowing dead on to the shore, and the waves were coming in with such fury that no boat could live against them.

And so the six drew up the boat out of danger, and made their way through the snow, which was up to their waists, to a little wood that came down close to the beach. They had no fire, for the tinder-box had got wet in the passage from the ship; they had no

shelter, and they had no food. The cold was so great as to benumb them, and it was with great difficulty that Prenties and the mate could keep the men awake, for to sleep under such circumstances was to die. The poor boy had got wet through by his plunge into the sea, and his clothes were frozen on him. Every effort to keep him awake proved futile, and at last he dropped down and slept. A few minutes afterwards Prenties thought he was dead, and felt his cheek. The little fellow only just woke to die, whispering the kind-hearted aide-de-camp to write to his father, to whom he had been on his way, and tell him how he had gone to another Father along that cold road in the snow.

And now the three men lay down in spite of all that Prenties and the mate could do. To allow them to sleep was not to be thought of, and so to keep all moving Prenties cut a pair of switches off a tree, and with these he and the mate watched all night and slashed the half-torpid three each time they closed their eyes. All night long the watching and slashing went on in the piercing north-westerly wind, but when the morning broke though Prenties was untouched by the frost, the mate was slightly nipped, and the three men were each frozen halfway up their legs.

The ship had not broken up. The tide had gone out, and she was close to shore. A rope was thrown from her; one end of it was fastened to the jibboom and the other to a tree on the land, and along it came all but two that had passed the night on board. One of these—a passenger—had died; the other—the carpenter—was drunk. The fugitives brought no food with them, but one man had a tinder-box, and soon a fire was kindled. It took all that day to rig the rope and get the people to land.

The next day the violence of the sea had somewhat abated, and the carpenter was taken off, frozen in all his limbs; and on the 8th of December the *St. Lawrence* went to pieces along one side of her, and some beef and onions floated ashore. These were picked up and greedily devoured, for there

had been no food for four days. Deals came floating in from the wreck, and of about two hundred of these a house was built, twenty feet long by ten feet wide. The construction of this house was peculiar. Two trees were taken at the twenty feet apart; and some distance up them, stretching from one to the other, on each side of their trunks poles were lashed, so as to leave a space between of about a foot all along. Against these poles the planks were laid at an angle of about sixty degrees, and the ends were filled in. The fire was made along the whole length of the house, and the gap between the poles at the top served for the chimney.

Between two and three hundred pounds of beef had come ashore and a great many onions; and the men were put upon rations to make the food last as long as possible. These rations were a quarter of a pound of beef and four onions per head per day. On December 11th the gale had gone down enough to allow the boat to go to the ship, and an endeavour was made to open the hatches, which were caked down with ice. All day was spent in the attempt, and on the next day the hold was got into. From the ship were taken two hundredweight of onions, a hundred-and-twenty-pound barrel of beef, a quarter-cask of potatoes, a bottle of oil, an axe, a large iron pot, two camp-kettles, twelve pounds of tallow candles, and three barrels of apples, shipped by a Jewish merchant at Quebec. These apples were indeed a welcome discovery.

The same night the aide-de-camp, when down at the beach, found a bundle of the ship's papers washed ashore. He opened them, and read to his astonishment that the *St. Lawrence*, though cleared for New York, was really bound for the West Indies. Her captain had intended to do a little privateering under the American flag, and her passengers had been saved from the trap by the leak and the wreck. Prenties read the papers through, and added them to the bundle he wore round his waist.

(To be continued.)

THE STAR OF THE SOUTH:

A TALE OF THE DIAMOND FIELDS.

By JULES VERNE,

Author of "The Boy Captain," "Godfrey Morgan," "The Cryptogram," etc.

CHAPTER IV.—VANDERGAART KOPJE.

"I MUST be off," said Cyprien, as he dressed himself next morning. "I must leave Griqualand. After what that man said to me, to remain here a day would be weakness. He won't give me his daughter! Perhaps he is right. Anyhow, it will never do to look as if I wanted to plead extenuating circumstances. I must accept the verdict like a man, however painful it may be, and trust to the future to set things right."

And without further hesitation he began to stow away the apparatus in the packing-cases, which had served him for tables and cupboards. He worked with a will for an hour or so, and then through the open window came a sweet girlish voice, clear and full as the voice of the skylark:

'Tis the last rose of summer
Left blooming alone;
All her lovely companions
Are faded and gone.

He ran to the window and saw Alice on her way to the ostriches, with her

apron full of scraps for their food. She it was who was singing to the rising sun:

I'll not leave thee, thou lone one
To pine on the stem;
Since the lovely are sleeping,
Go sleep thou with them.

The young engineer was not particularly susceptible to poetical influences, but something in the song affected him deeply. He stood still at the window and listened intently.

The song ceased. Miss Watkins began to feed the ostriches, and as she did so it was pleasant to see the birds craning their long necks and dodging their huge awkward heads in front of her hand as she tantalisingly held out and withdrew the morsels of food. Then she finished her task, and as she returned resumed her song:

'Tis the last rose of summer
Left blooming alone;
All her lovely companions
Are faded and gone.

Cyprien was standing in the same place, with the tears welling up into his eyes, as if under a charm.

The voice grew more distant. Alice was within twenty yards of the farm, when the sound of hurried footsteps caused her to pause and turn round.

Cyprien, by an irresistible impulse, had left his hut, and was running after her bare-headed.

"Miss Watkins."

"Mr. Cyprien."

They were face to face in the full glow of the rising sun on the path that bordered the farm. Their shadows were thrown sharp and clear on the white wood of the palings. And now that Cyprien had reached Miss Watkins, he seemed astonished at what he had done and undecided what to say.

"You have something to say to me, Mr. Cyprien?" asked the lady, anxiously.

"I have come to bid you good-bye. I am going away to-day," was the answer.

The delicate rose tint which gave the life to Alice's face suddenly disappeared.

"Going away! You are going away? Where?" she asked tremblingly.

"Home—to France," replied Cyprien.

"My work is done here. My mission has

disinterested, apart from the rest! you make me help you in your study and work! you open your heart to me, and make me share your hopes, your literary



"Going away! You are going away?"

ended. I have nothing else to do in Griqualand. And I am obliged to get back to Paris."

This with a pause between each sentence, and as if he were craving pardon for some crime.

The girl was astounded. The news fell on her like a blow from a erowbar. Suddenly the teardrops showed themselves, and hung suspended on the long lashes which shaded her eyes. And then, as if recalled to the reality of the scene, she recovered herself, and said, with a slight smile,

"Going away! And you are going to run away from your scholar before she has finished her chemistry? You are going to leave me in oxygen and those mysteries of azote which were always a dead-letter for me? It is hardly the correct thing, sir."

She tried to put a good face on it, and to laugh it off, but the tone of her voice belied her words. Beneath her jesting there was a deep reproach which went straight to the young man's heart.

She continued, but the jesting tone was gone:

"And I? Do you think I am nothing? You quietly drop me back into chaos! You come here that I may see amongst all these Boers and greedy diggers a superior privileged being, learned, proud,

preferences, and your artistic tastes! you reveal to me the distance between a thinker such as you and the mere bimana that surround me! you encourage me to admire you and to like you! you nearly succeeded in doing so! Then you come and coolly tell me that it is all over, that you are off to Paris, and are in a hurry to forget me! And you think I am going to take it all as coolly as if I were a philosopher!"

Yes, he had done all that Aliee with her tearful eyes had reproached him with.

"It is necessary that I do so! I yesterday asked your father to allow me to ask you to be my wife! He has refused, and gives me no hope! Now do you understand why I am going?" he was just about to say in defence, when the thought of his promise crossed his mind. He had promised John Watkins never to speak to his daughter on the subject of his dream, and he judged it dishonourable to break his word.

But at the same time he felt that his idea of immediate departure was brutally unkind. It seemed to him impossible to thus suddenly abandon the girl he loved, and who evidently—there could be no doubt of it—loved him. At first the thought of delay frightened him, then it seemed to him as imperatively necessary.

"When I spoke of going away, Miss Watkins," at last he said, "I did not mean this morning—nor to-day—nor—I have a few more notes to make—preparations to finish— Anyhow, I shall have the pleasure of seeing you again and—talking with you about—about—your studies!"

And then Cyprien abruptly turned away and ran off like a lunatic. He rushed into his hut, and throwing himself into an arm-chair, was immediately deep in thought.

And his thoughts were somewhat different from what they were before he spoke to Miss Watkins.

"Give her up because I have got no money!" he said to himself. "Knock under at the first blow! Is that the sort of man I am? Would it not be better to sacrifice a few prejudices and try and make myself worthy of her? How many fellows make their fortunes in a few months on the Diamond Fields? Why shouldn't I? Why shouldn't I turn up a hundred-carat diamond as the others have done; or better still, find a new field? Surely I have more theoretical and practical knowledge than most of these men? Why should not knowledge give me what work and luck give them? After all, I risk little in having a try. Even from this standpoint of my mission it would not do me any harm to take a turn with shovel and pick and gain some practical experience as a digger. And, if I succeed; if I become rich in this primitive way, who knows but what Watkins will yield, and reverse his decision? The prize is well worth the trial!"

And Cyprien began to walk up and down the laboratory, but his hands were still, his brain only was at work.

Suddenly he stopped, put on his hat, and walked out.

He took the path down to the flat, and at a great pace set out for Vandergraat Kopje.

In less than an hour he was there.

The miners were recrowding into the camp after their breakfast. Cyprien, as the bronzed visages passed by, was wondering to whom to apply for the information he wanted, when he recognised in one of the groups the honest face of Thomas Steel, the Lancashire miner. Two or three times had he met him since his arrival in Griqualand, and found that he was prospering, a fact sufficiently shown by his contented features, his brand new clothes, and the large leather belt round his waist.

Cyprien made up his mind to accost him, and tell him of his intention.

"Buy a claim? Nothing easier if you have got the money!" answered the miner. "There is one now close to mine. Four hundred pounds! It is giving it away! With half a dozen niggers to work for you, you'll make thirty pounds a week."

"But I haven't got four hundred pounds, and I don't possess a nigger!"

"Well, buy a share in a claim—an eighth or a sixteenth—and work it yourself! You can get one for forty pounds."

"That is more my figure," answered the engineer; "but you, Mr. Steel, how have you done, if I may be allowed to ask? Did you have any capital?"

"I got here with my arms and three sovereigns in my pocket," replied the Lancashire lad; "but I was lucky. I first worked half shares with a man who

had an eighth. The fellow liked hanging about the liquor-shop better than working, and so we halved. I made some excellent finds, one a five-carat stone that we sold for two hundred pounds! Then I left off working for the first cove and bought a sixteenth for myself. As I only found small stones I got clear of that in ten days and went halves with an Australian on his claim. But we have hardly made a fiver this first week."

"If I found a share in a good claim that would not cost too much, will you go partners with me and work it?" asked the engineer.

"If you like," answered Steel; "but on one condition. That is, we each keep what we find. Not that I mistrust you, Mr. Cyprien. But you see, since I have been here I always lose when the sharing comes, for I am a good hand at the pickaxe and shovel, and I do about three times the work of the other fellows!"

"That seems fair enough," said Cyprien.

"Well, then here's an idea, perhaps a good 'un. Let us two take one of John Watkins's claims."

"One of his claims? I thought all the kopje belonged to him."

"So it does, but the Colonial Government, you know, lays hold of it as soon as it is declared a diamond field. He looks after it, measures it out, cuts up the claims, and keeps the best part of the price, and pays only a fixed royalty. And the royalty, when the kopje is as large as this one, amounts to something. But the freeholder always has the preference in buying back as many claims as he can work. That is the case with Watkins. He has got several going besides his property in the kopje. But he cannot work them as he ought to, for the gout stops him from coming down here, and I think he would let you have one cheap if you made an offer."

"I would rather you do the bargaining," said Cyprien.

"It makes no difference to me," replied Steel. "Just as you like."

Three hours later half-claim No. 942, duly marked out with stakes and identified on the plan, was handed over to Messrs. Cyprien and Steel for the sum of ninety pounds. It was expressly stipulated in the deed that the concessionaries should share the profits with John Watkins, and as a royalty hand him over the three first diamonds weighing more than ten carats that they should find. There was nothing to show that such a find was

likely to be made, but still it was possible—everything was possible.

On the whole the bargain was a good one for Cyprien, and Watkins, with his customary frankness, told him so as he signed the contract.

"You have acted like a sensible chap," said he, as he tapped Cyprien on the shoulder. "There is some stuff in you. I shouldn't be surprised if you turn out one of the luckiest diggers in Griqualand."

Cyprien could not but see in these words a happy augury for the future.

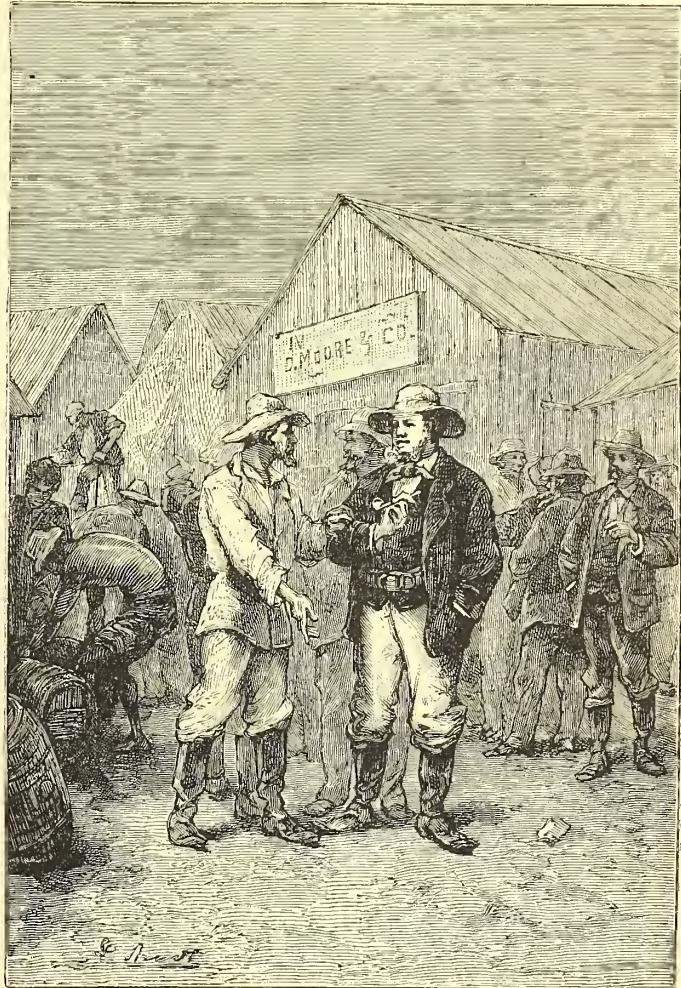
And Miss Watkins, who was present at

the interview, had she a look bright as sunshine in her blue eyes? No! Seemingly she had been crying all the morning.

By tacit consent nothing was said about the meeting early in the day. Cyprien was going to stay, that was evident.

The young engineer left with a light heart, and having made up his mind to visit the farm for the future only in his leisure moments, set to work to pack up a few of his things and take them down to his tent at Vandergraart Kopje.

(To be continued.)



"Buy a claim? Nothing is easier if you have the money!"

GREAT SHIPWRECKS OF THE WORLD.

THE BIRKENHEAD.

THE wreck of the Grosvenor recalls another disaster off the East African coast whose fame is world-wide and whose glorious story can boast of an honour never given before or since to a record of the sea, it having been read on parade at the head of every regiment in the Prussian service by order of the present Emperor of Germany as a lesson in discipline to his army, then, as now, the best disciplined army in the world. Truly a priceless tribute of admiration, all the more noteworthy as being unsought and unasked for.

The Birkenhead was an iron paddle-steamer built at Birkenhead by Mr. Laird

for a frigate and converted into a trooper. Towards the end of 1851 she sailed from the Cove of Cork for the Cape with reinforcements for the troops engaged in the Kaffir War. Her crew mustered one hundred and thirty all told; her troops, with their wives and families, numbered five hundred. The ship was under the command of Captain R. Salmond, and Colonel Seton, of the 75th Highlanders, was in charge of the soldiers, consisting of drafts of the 12th Lancers and of the 2nd, 6th, 12th, 43rd, 45th, 60th, 73rd, 74th, and 91st Regiments of the Line.

The Birkenhead had a very rough passage,

and was forty-seven days out when she reached Simon's Bay on February 23rd, 1852. After taking in three hundred and fifty tons of coal and sundry provisions, she proceeded on her voyage to Algoa Bay at six o'clock on the evening of the 28th.

At two o'clock in the morning she crashed on to an isolated rock below the water level off Point Danger. She was going eight knots an hour at the time, the night was clear, the sea was smooth except for the existence of a long swell, and the lead was going. A few seconds before she struck, the leadman on the paddle-box reported thirteen fathoms,

and while the lead was being cast again the catastrophe occurred. The cast was taken nevertheless, and though the bow was on the rock there were seven fathoms of water beneath her amidships and eleven under her stern. She was out of her course; instead of being ten miles from the shore, as supposed, she was only two and a half, and either a strong current had set in, such as affected the Rhadamanthus when she afterwards came in search, or her compasses had been touched by that peculiar disturbance which on the same night in the same latitude sent the binnacle compass of the Propontis half a dozen points to the westward.

The vessel began to fill. Captain Salmond rushed on deck and ordered the boats to be launched. Three of them only could be got safely afloat. The rest were swamped in launching, or stuck fast. The large paddle-box boats proved useless; the davit pins had rusted in and were immovable! Into the boats were put the women and children.

The ship was backed, and into the hole rushed the water, drowning many of the men in their berths. Again she struck, buckling her plates and breaking down her bulkheads.

The water burst into the engine-room, and the engineer and stokers had barely time to run up out of danger.

Everything was done to save the ship, but in vain. Discipline was never lost for a moment. The sailors went to the pumps to try and keep the water under, the soldiers were mustered by detachments on the deck, and went down with her to their watery graves as if merely on parade. The fore part of the ship sank first; then she broke up abaft the mainmast; the poop went last. The mainmast stood up above the waves, and to its topsail yard over forty men were afterwards found clinging.

At first no sound was heard but the voice of the commanding officers. In the last heave of the sinking ship the word was given, "Let all who can swim now try to save themselves." Some one said, "Make for the boats!" but another shouted that they would by so doing endanger the lives of the seventy-eight who were in them in safety, and no attempt of the sort was made. "The men went down as coolly as if embarking instead of going to the bottom."

The women, the children, and the sick were in the boats, keeping near the ship, and not daring to land owing to the forbidding nature of the beach. The horses had been thrown overboard, and five of them swam ashore in safety. Of the men, over two hundred were afloat on pieces of drift timber.

Captain Salmond was struck by the binnet as he rose. Cornet Bond was sucked down by the poop as it sank, and, clearing himself, swam ashore, and caught his own horse as it trotted up out of the surf. A rough raft was thrown together, and on it nine men passed to the land in safety. Captain Wright was saved on a sponson. A few were saved on a paddle-box. One soldier was thirty-five hours floating about on a piece of timber.

The place was haunted by hundreds of sharks, and these feasted on the prey so suddenly crowding into their jaws. Those soldiers who were fully dressed escaped, those who had hurried up from below in different stages of night apparel fell easy victims. The shrieks from the crowded water were heartrending as man after man disappeared, dragged down by the furious brutes who revelled in the banquet.

Those who were saved made their way to the nearest house, that of Captain Smales, late 7th Dragoon Guards, and thence sent messages to the Governor. The boats at first made for the offing, and sighted a schooner. The schooner failed to notice them and kept on her way. Then one of the boats returned, and finding a creek along the beach, was there run ashore.

One of the other boats hoisted a woman's sail. At last the schooner saw them. About

she went and bore down. She proved to be the Lioness, under Captain Ramsden, and ably was she handled, and well did she work. She picked up the two boats; she found the survivors clinging to the topsail-yard; she cruised about the scene of the wreck; and altogether she took on board no less than one hundred and sixteen. Seventy-eight escaped to the land, and thus the hundred and ninety-four survivors out of the six hundred and thirty troops and crew were accounted for.

There is no need to dwell upon sickening details. The fact remains that the sailors all did their duty as well as faulty machinery permitted them, and that the soldiers remembered their drill and faced death as gallantly as ever men faced it yet.

In the eloquent words of Sir Francis Hastings Doyle:—

"The stout ship Birkenhead lay hard and fast,
Caught without hope upon a hidden rock;
Her timbers thrilled as nerves, when through them
passed
The spirit of that shock.

"So calm the air, so calm and still the flood,
That low down in its blue translucent glass
We saw the great fierce fish, that thirst for blood,
Pass slowly, then repass.

"They tarried, the waves tarried for their prey!
The sea turned one clear smile! Like thing
asleep
Those dark shapes in the azure silence lay,
As quiet as the deep.

"Then amidst oath and prayer, and rush and wreck,
Faint screams, faint questions waiting no reply,
Our colonel gave the word, and on the deck
Formed us in line to die.

"To die!—'twas hard, while the sleek ocean glowed
Beneath a sky as fair as summer flowers;
'All to the boats!' cried one—he was, thank God,
No officer of ours.

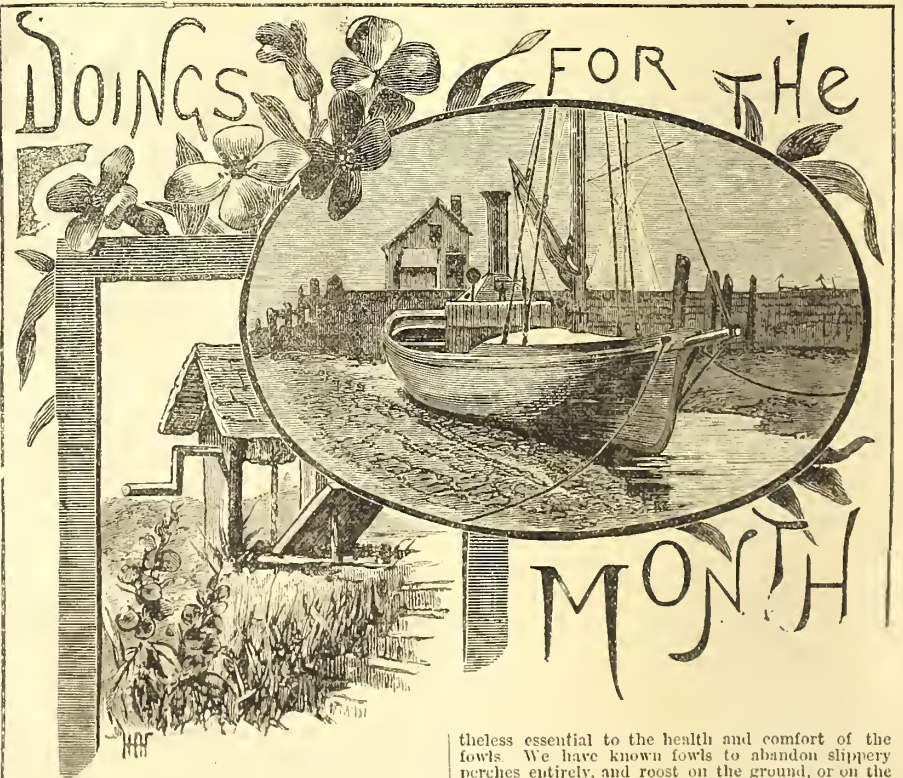
"Our English hearts beat true—we would not stir;
That base appeal we heard, but heeded not.
On land, on sea, we had our colours, sir,
To keep without spot!

"They shall not say in England that we fought
With shameful strength, unhonoured life to seek;
Into mean safety, mean deserters, brought
By trampling down the weak.

"So we made women with their children go,
The oars ply back again, and yet again;
Whilst, inch by inch, the drowning ship sank low,
Still under steadfast men.

"What follows, why recall? The brave who died,
Died without flinching in the bloody surf;
They sleep as well, beneath that purple tide,
As others under turf.

"They sleep as well! and, roused from their wild
grave,
Wearing their wounds like stars, shall rise again,
Oint heirs with Christ, because they bled to save
His weak ones, not in vain."



THE POULTRY RUN.—So far as our fowl runs are concerned, winter even in England may be said to commence this month. For the days are getting dark and short, and the nights proportionately cold and dreary. Far in the north, during the latter end of this month, if not before, we will have frost and snow, and everywhere there will be boisterous winds and wet. Well, we must be prepared for anything. We presume our poultry readers have already seen to all repairs, and that the fowl-house, while well ventilated, is perfectly watertight. Have a look to the inside fittings as well. Filthy, greasy perches are an abomination. Of slight importance though this matter may seem, it is never-

theless essential to the health and comfort of the fowls. We have known fowls to abandon slippery perches entirely, and roost on the ground, or on the edge of nest-boxes.

See to these nest-boxes, and be just as particular to keep them clean, and to keep clean straw in them, as you would be in summer. Beware of muck and filth, or wet on the floors. There is nothing to beat a cement floor for a fowl-house. Gravel is sometimes thrown in. It is too often thrown in to hide mess, and it is no disinfectant. If you really have not time to clean out the droppings twice or thrice a week, throw a shovelful of earth—preferably peat—over them, and clean out once a week.

A good shed, with a dust-bath over it, is a great comfort to fowls at this time of the year. Keep it always well filled with good dry garden mould, or peat earth, mixed with gravel and sand, and put

it down; now and then put a good handful of sulphur in it. Mind this; if your shed is not watertight your dust-bath becomes a mud one, or a damp one at least, and the fowls will not use it.

Now that the dark weather is coming on, we hope you have a lantern, cost twopenny, made of wire iron, with three glass windows. Such a lantern will last for years, and is a great comfort. If you are going to build a new fowl-house, mind thatch is better than any other roofing.

We hope you have finished weeding out useless birds, or that any nondescripts you do possess will soon be cleared away, either to market or pot. Fatten by penning them separately, and feeding as often as they will eat on farinaceous food of all kinds, with milk and suet. But see that the latter does not affect the bowels. Feed laying hens extra well: they need meat, bullocks' lights, meaty scraps, etc.; but not too much flour food, as this is fattening. Drooping fowls should be seen to. If white about the combs, put a rusty nail or two in the water. If they have any husky cough, and are weak in the legs, remove them to the warmth of a kitchen, or cellar with straw in it, and feed on nutritious diet. A few drops, say five, of paregoric and the same quantity of tincture of steel may be made into a ball with treacle and flour, and put over the throat twice a day. If in the cellar, manufacture some kind of low perch for them.

THE PIGEON LOFT.—The DOINGS for this month are neither many nor varied—that is, if all repairs, etc., have been seen to as we previously advised. If not, lose no time about it, so that your favourites may be healthy for the winter. In looking over our DOINGS for this time last year, we find we recommended the use of a hospital pen in case of sick birds. If you follow our advice, however, month after month, you will seldom be unlucky enough to have a tenant in your hospital. There are few more unsatisfactory patients than pigeons make. Ordinary birds had better be killed right off, but a valuable one should be given a chance. We sometimes get asked about a disease called *canker*. This is universally admitted to be an ailment brought on by overcrowding in filthy lofts. The trouble is infectious, so a thorough system of cleansing and quarantining should be adopted whenever it appears. It is seen in the throat as an ulcerous growth, or in the head or jaws, or in wattles of carriers, etc. We fear we can hardly recommend any cure with certainty, for the ailment is in the blood; but the diseased bird having been separated from the others, should have glycerine and iron in its water, be extra well fed, kept clean and warm, and have the sores touched twice a day with tincture of iodine, or a solution of nitrate of silver twenty grains to an ounce.

Garden pigeons should now be planned. Plan them first on paper, count the cost, and determine what kind of birds you care to go in for. We will give further directions about this next month.

THE AVIARY.—The cold weather will soon be with us, if it be not so already in many parts. The change is often sudden. Those who keep many canaries ought to be weather-wise, and when the sun sets in a clear sky, and the stars shine out brightly thereafter, look out for frost, and cover up the cages at night. We would have you remember, though, that overwarmth, especially in stuffy rooms, is most detrimental to the health of canaries. You must study to keep up an equable temperature as far as possible. Mind, too, that you must never wholly cover up a cage. Leave breathing-room. We often get letters from boys in summer complaining that, though they have done everything we have suggested, still their attempts at breeding canaries have been failures. They should remember that the parents ought to be strong and lively. But they cannot be so if they have been kept all the weary winter in hot, close rooms. Such treatment is bound to debilitate them. So be warned in time.

We hope you thoroughly cleaned, disinfected, and dried your breeding-cages before you put them away, and that they are hanging in a clean place, and well covered up from dust.

Keep your birds clean. Give fresh water daily; no dainties, except now and then a morsel of sugar or sweet apple. But let the seeds be good, clean, and plain.

THE RABBITRY.—No animals need more snug quarters in the winter months than our bunnies. Damp is ruinous, bad bedding breeds disease and weakens the constitution.

We gave an excellent hint last year, which we hope has not been quite thrown away. We advised our readers to write out on a card the various kinds of food suitable for rabbits, and hang it where it could be seen. Do this, and do not forget to study variety in feeding. Beware of wet green food. Do not forget to let your rabbits have exercise if the weather is at all fine. You cannot be too careful now of the comfort of your stock. Such carefulness has its reward.

THE KENNEL.—Fleas in dogs are very troublesome. There is nothing like Persian insect-powder (Keating's) for dispersing them. But it must be used every day for a week out of doors, for the insects are not always killed—they go off. Wash twice a week, and let the bed be clean straw. Beware of what soap you use. A harsh alkaline soap always injures the skin. Give your dogs now plenty of exercise, and take plenty yourself, so should you both be able to defy coughs and colds during the coming winter months.

THE KITCHEN GARDEN.—The principal work now is making general repairs of every kind, and thoroughly trimming your borders and pathways. On fine days

clear up all rubbish, burn sticks and branches, and turn dead leaves into a heap. Dig ground. Take up and store beet and carrots. Earth up celery well. Prune hedges and trees, and plant fruit trees. Make everything tidy everywhere.

THE FLOWER GARDEN.—Plant bulbs and spring flowers of all kinds, lay out new borders, and see to old ones. Study chrysanthemum gardening this year, so as to be prepared next for a fine show of your own. They are splendid flowers, and turn winter almost into summer with their glorious appearance.

THE WINDOW GARDEN.—Evergreens must now take the place of flowers, and there are many very charming kinds. But now is the season to work in the shed making outside window-boxes, and covering them with tiles, cork, or bark. This last must be put on so as to well overlap, else the pieces shrink so much that portious of the box are left bare.

FISHING FOR THE MONTH.

NOVEMBER.

THE Chub.—Chaveuder, Chevin, Loggerhead, or Skelly (query Scaly?), as the *Leuciscus cephalus* is variously termed—is another of the Cyprinidae or Carp family, of which I personally am very fond, and the capture of which is to me always an unalloyed pleasure. Various are the reasons for this—he is shy and yet bold, gross and greedy, and yet a lover of good things, not much good on the table, and yet a splendidly strong and courageous fish, taxing the resources of the angler to the utmost on fine tackle, and often coming off victor. My homely this month, therefore, will be upon our opprobriously named "Loggerhead," albeit, though broad-browed and large-mouthed, not by any means so ugly as the nickname would seem to imply.

The tackle you must have for this fish should be strong, but as fine as is consistent with that strength. A rather large, say No. 4 or 5 round bend, hook is the best size; and though the chub is so shy that if the shadow of a flying bird falls on the water he will probably dive at once, yet the hook need not be carefully covered up in the bait. A running line of fine silk twist is what is usually employed, and a stoutish quill float weighted with a few small shot at intervals completes the outfit. You will see that the chub-fisher's outfit is very simple for ordinary purposes. Fly-fishing for this fish I will explain presently. There is a great deal, however, in knowing how to use it, and what baits to employ. To give an idea of these subjects, let us first consider where the chub lives. What says Isaac Walton on this head?—let me tell you that his observations on the chub will hold good yet, and for some years to come. He says quaintly, "At yonder tree I shall catch a chub. . . . Look you here, sir, do you see? (but you must stand very close) there lie upon the top of the water in this very hole twenty chubs." And this indicates, though briefly, the chief resting and basking-places of the fish. Under overhanging willows, in the deep holes by the side of clay banks which have been burrowed out by water-rats, near ancient edifices of camp sheathing, etc., the chub is always found, if the river produces him at all; but specially in the Thames at Walton, Chertsey, Staines, and other places is he to be found near the willows. As to baits, they are many, but easily obtainable. Cheese is a favourite dainty, and should be cut up into wedge-shaped pieces of three-eighths or half-inch size and then used. Select your "hunting-ground" and have some one with you in the boat—for a boat is very necessary—to hand you silently down from bough to bough as you desire.

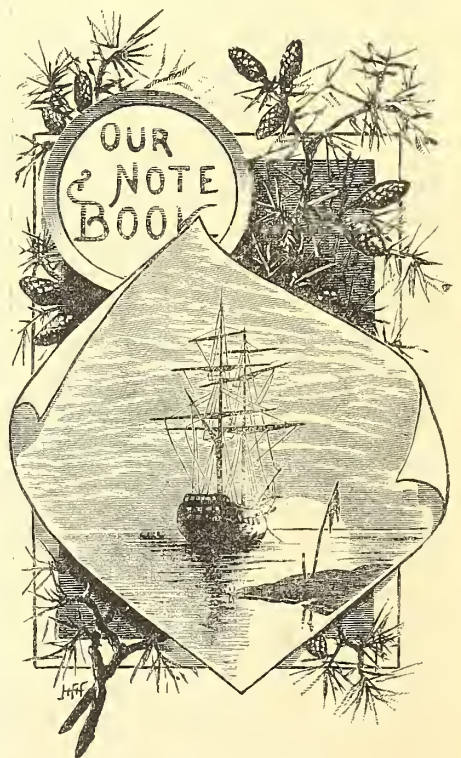
Having arrived at the spot you wish to begin from, take a piece of the cheese in your mouth and chew it rapidly, blowing out the chewed portions into the water in front of you, that they may float down. These the voracious chub see and come out to take them, but it requires many such pieces to fill the capacious maw of the chevin. So to satisfy him you run the hook through a large piece, and letting the hook appear through, quietly let it fall into the water and float onwards, being careful to put the float so that the bait is traversing mid-water. Onward glides the float, and presently, without any warning, down it goes. Oh, welcome sight! You strike, and out rushes with frantic haste the frightened chub. Be careful how you handle him, so that his great strength does not break your tackle. There is no fear of the hook breaking out, for the skin of the mouth is as tough as chamois leather; and after a fight more or less severe and prolonged, you eventually get him into the landing-net, perchance a beauty of three or even more pounds.

Pith and brains during this month are excellent baits also. This pith is the spinal marrow of the bullock, and the brains may be those of any animal—except of course your own, for you may want them, you know, at some future time—and the way to prepare both is as follows. For the pith, take it as you get it from your butcher, and drop it into boiling water, keeping it in some few minutes, then take it out and slip off the outer brown skin with a pair of seissors; roll the pith into bran, and toss it about till cool, cut it up into pieces an inch long, and it is ready for the hook. The brains are simply boiled, and when cool are chopped up fine; a little oatmeal can be dusted in with them to aid their

disintegration when thrown in the water. They are for ground-bait. A red worm is also a capital bait, and I have seen some of the largest chub caught with a black slug. The inside is slit open, and the viscera exuded. The slug is then turned half inside out, so as to show the black-and-white of its back and inside. When this is used it is best to thread the bait on the gut, and draw it down on to the hook. It will be found nine times out of ten some inches up the line on unhooking the fish, owing to the latter's power of blowing anything out of its mouth. By-the-by, did you ever notice the way a fish does this? if not, look carefully at your goldfish the next time you feed them, and it will explain to you how some of your best bites are apparently missed, because the fish has instantly blown out the lure ere you could make the strike felt. The fish draws in a draught of water, and with it the bait; at this moment the gill-covers are closed, then when it wishes to expel by the mouth again the latter is opened, and a quick muscular movement of the gill-covers shoots the contents forward, oftentimes with really extraordinary velocity. This movement is quite worth noting by the young angler naturalist.

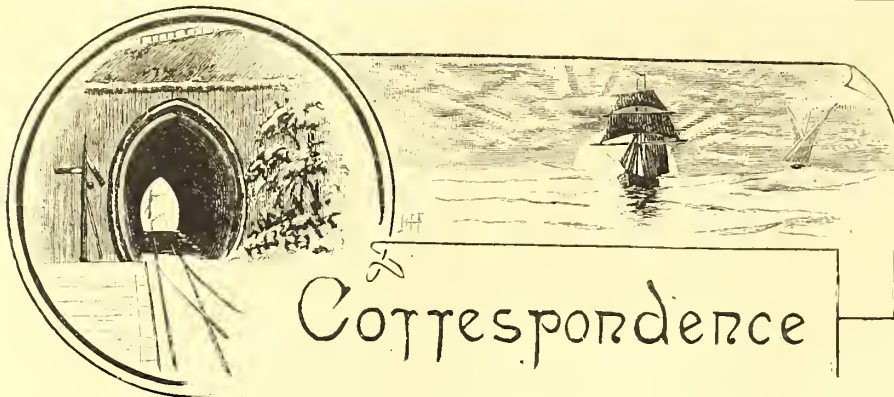
Artificial fly-fishing for chub is very pretty sport, but should be practised earlier in the year, say in August. I ought properly to have referred to it then, but better late than never. The flies chiefly favoured by the knowing ones are—to perpetrate an Irish "bull"—not flies at all, but the caterpillars of the *Aretia cava*, or tiger-moth. This is imitated in the following way. Black cocks' hackle ribbed with fine silver twist tied with black silk is the material. Let the tyro obtain one from the tackle-maker's, and he will at once see the method of tying it.

Do not be deterred from chub-fishing by the coldness of these autumn months; unless the thermometer indicates freezing-point—32°—there is nothing to fear in reference to the chub's appetite. The only thing is, you must select the deepest and quietest and most oily eddies, and be as quiet as a shadow. Talking will not influence your takes, but noisy and rough movements are fatal to it. "Study to be quiet" (1 Thess. iv. 11), that is the maxim with which that pious and good angler, Isaac Walton, finished his "Complete Angler" two hundred years ago.



OUR COMPETITIONS.

In reply to various correspondents, let us here say once for all that the rules must in all cases be strictly adhered to. The ages cannot be altered. Why, what manner of use would rules be if readers were allowed to break them if so minded? As regards the "Writing Competition," it was the Bible and not the Prayer-book version of the psalm intended; and the "style of handwriting" may be just that which each competitor thinks he can best excel in, provided always that it be plain—that is, clear and legible. The "1844" and "February 29" that appeared in a few copies were clearly misprints for 1884 and February 28th respectively. There were twenty-nine days in last February, but then next year is not Leap Year. In the fretwork competition, purchased designs are admissible, but original work is of course preferable. Inlaying may be combined with the carving; and the case may be finished off in any style the worker prefers.



Correspondence

J.—You can get plaster casts as drawing models from any of the educational apparatus sellers, and from Brucciani, Russell Street, Covent Garden, and any of the Italian image shops in Leather Lane and Gray's Inn Lane.

SWALLOW.—Apply direct to the authorities by whom the examination is held; never appeal to a newspaper when you can get your information as cheaply and more promptly at first hand.

B. P. B.—1. Bank post bills were first issued in the coaching days, when the mail was so frequently robbed. The idea was that if the holder lost the bill he would have time to stop its payment. They are as good as cash throughout the civilised world. 2. Bank notes never get out of date; they are always payable on demand. Nevertheless, the average life of a £5 note is only one week.

H. F.—The best time to sow hardy perennials, such as wallflowers, is in April or May.

FLORIST.—The simplest way to preserve cut flowers is to stick them in damp sand or charcoal, and every day to cut a slice off the end of the stem with a sharp knife. Never cut flowers with scissors, or break them off so as to compress the stalk. Flowers with their stems wrapped in wet cotton wool will also last a considerable time.

TELEGRAPH No. 4.—1. The most romantic story of the "Man in the Iron Mask" is that which makes him the twin brother of Louis XIV., but the general opinion is that he was Count Matthioli. Almost any encyclopedia will give you details. See No. 130, in the August part for 1881. 2. A mau is always taller in the morning than when he goes tired to bed. When you are asleep you "stretch and grow." 3. Yes, the yeast plant. 4. Several of the Rosaceae have no bright colours in their blossoms. By a "rose" is meant the rose order, not necessarily the garden rose.

BROOKFIELD.—1. Perhaps Eton, with eight hundred boys. About a hundred a year. 2. There are many thousand square miles of forest land in America still unclaimed. The Indians are fast disappearing. 3. See our "Thrones of the Ice King" in the fifth volume.

AMICUS.—There are "Knowledge," price threepence; and "Nature," price sixpence, every week; and "Science Gossip," price fourpence; and "Science Monthly," price one shilling, every month. Do you mean natural science or physical science? Nearly every branch has its special organ.

SILVER CANYON.—What does St. Christopher do? Well, he protects you from unpleasant dreams, rescues you from flood, puts out your house when on fire, supports you during an earthquake, and, like a freely-advertised night-light, is the "burglars' horror" in defying robbery. If you have got the toothache, appeal to St. Blaise, who also makes a specialty of the quinsy and pleuro-pneumonia. If you have the ague, try St. Pernel, or St. Petronella; if neuralgia, try St. Apollonia; if you have bad eyes, try St. Clare—or spectacles; if you have a bad boil, inform St. Rooke; if you have the colic, St. Erasmus is the authority; if the gout, you should go to St. Wolfgang; if the leprosy, St. Lazarus; if the smallpox, St. Martin of Tours. Those who want riches should apply to St. Anne and St. Vincent; those who have lost their umbrellas should go to St. Ethelbert or St. Elian, or—Scotland Yard. There were even saints credited with special powers as flea and beetle exterminators, such as St. Gertrude and St. Huldric. But, enough; to quote the absurdities of saint-worship is but slaying the slain. In an antiquarian sense, however, the facts are interesting. There is a long list of saints for diseases, patron saints of places, and patron saints of trades and professions, in Brewer's "Readers' Handbook."

E. VENNING.—The colours of the political parties really depend upon those of the candidates, or of the leading landowners of the district. As a rule the Conservatives wear blue and the Liberals yellow, but in many places the reverse is the case. So far from being surprised at receiving no answer, you may think yourself exceptionally lucky at having obtained one. The rule as to answering all letters does not obtain in journalism; it would be impossible to carry it out, as the letters are so multitudinous.

P. C.—In the February part for 1883 you will find a long list of coloured fires, and how to make them.

TRUE ENGLISH LAD.—If you go to Australia you must work. There is no more opening for a loiterer there than here, and the idea of earning a living at sport is not to be entertained.

E. E. A.—The highest peak of the Hindoo Koosh cannot be given, because the mountains have not yet been measured. It probably exceeds twenty thousand feet.

MAPPER.—1. Johnston's Guinea Cosmographic Atlas might suit you. It has about seventy maps and plates. It is published at White Hart Street, Paternoster Row, and in Edinburgh. 2. A handbook to the culture of old-fashioned flowers and hardy perennials that require little attention is published by Gill, 170, Strand. It is by Mr. John Wood. 3. A "Handbook to South Australia by J. Stow" can be obtained from the Agent-General in Victoria Street. The "Official Handbook to New Zealand" costs a shilling, and is published by Stanford.

L. O. S.—The flying lichens are the Lecanora, known also as the Manna lichens. They grow with little adhesion to the soil, are collected by the wind, and swept away in great quantities in Northern and Western Asia and North Africa, and suddenly make their appearance as if from the clouds, falling like rain, and covering the ground to a depth of several inches. At one of the sieges of Ilerat the starving inhabitants were saved by a shower of the Lecanora which took place over the city; and in the Caspian famine, about fifty years ago, there was a great downfall of the Mannas. They are abundant in Central Asia, where the lichen is known as the "earth bread," and greedily eaten by man and beast; but, just as "baker's bread" contains occasionally too much phosphate of lime to be healthy, "earth bread" has frequently an overdose of lime oxalate. There is a flying lichen in Dorsetshire—the Parmelia.

RALPH.—If you want a smooth brass casting, dust your mould with flour or quicklime.

A. E. EARLS (Sydney).—1. As to the reason of the claim of the English kings to be Kings of France, consult any History of England that deals with the reign of Edward III. 2. You can get Pitman's Short-hand at Robertson's. 3. Make a perpetual calendar according to our instructions, and find the days for yourself. 4. You cannot restore the colour of the leather binding. It has not been properly dressed. If you were to use the inside of your Bible as much as the outside you would not have to send twelve thousand miles to inquire who Ninrod was.

TIGBY E. S.—1. Guineas is said to have been invented by Roger Bacon, by the monk Schwartz, by the Chinese, and by several other people, and you can take your choice. 2. It is not known when gold was first coined in this country, but the Britons had a gold coinage long previous to Caesar's invasion.

WOULD-BE POLITICIAN.—As the members enter the House after it is cleared, their names are ticked off on a printed list, those entering on one side being in favour of the motion, those entering on the other being against it.

NORFOLK DUMPLING.—We cannot work out algebraic problems in these columns. In Hall's Algebra, or Colenso's Algebra, you will find the rules you mention duly explained. In the last example as to the two digits, the answer is so obviously 23 that we wonder you did not find out the method by working backwards. Remember to multiply the leading digit by 10 when you state the equation. Find y in terms of x .

J. A. McE.—Read Lubbock's "Prehistoric Man," Ferguson's "Rude Stone Monuments," or call at the City Free Library at Guildhall, and consult any good encyclopedia, and work up the references at the end of the article. You will find the information in modern books under "temple," "chronicle," "dolmen," "monolith," etc. To call the stones Druidical is to beg the question; in nine cases out of ten there is nothing Druidical about them, unless you use the term Druid as descriptive of all the races who inhabited this country before the days of William the Conqueror.

H. P. CRUMP.—1. You can get virgin cork from Epps, Vauxhall Station, and from almost every nurseryman. 2. Try "Every Man his own Mechanic," now issuing in sixpenny monthly parts by Ward, Lock, and Co.

J. R. ROWLAND.—Write to Stanford, Charing Cross, or any other London publisher, for catalogue of his books.

M. L. W.—The "Kide to Aix" is purely imaginary. See the index to our third volume. Robert Brown was born in 1812 and is still living.

H. S.—The articles on bird-stuffing are not out of print. The names of the series are "The Boy's Own Museum" and "Waterton's Method." We know of no book at the price.

ONE OF SHEPHERD'S FLOCK.—1. Dew is caused by condensation of the air's moisture owing to the radiation of the earth's heat. Where the radiation is greatest the dew is heaviest, and hence the grass was wetter than the post. 2. Anybody can have a coat-of-arms by paying for it. The Herald's College is the Government department that attends to such matters, makes the search or invention, and extracts the fees.

T. A. SEARLE.—1. More stamp articles will appear in due course. 2. Postage-stamps were invented in England, and first used by our own Government.

HORNS.—1. You must apply to the slaughterers or fellmongers. Your butcher does not kill his own meat, therefore he cannot help you. Try Islington or Deptford. 2. No. 3. There is a workshop at King's College, where you could get practical instruction in carpentering. There is a private school where such classes are held at Syer's in Finsbury Street, E.C.

ORDINARY SEAMAN.—Order from any bookseller, price one shilling, "On Going to Sea, or Under the Red Ensign," by Mr. Thomas Gray. You will there find full particulars how to join the mercantile marine in any of the capacities you mention.

B. RAMANNA.—1. The cheapest way would be to get the parts from one of our Indian depôts. 2. For modern English you could not do better than read our better class newspapers and reviews. 3. A tri-cycle costs £23 at maker's list price. 4. The cost depends so much on the character of the individual.

H. TRENFIELD.—1. A mutilated Mulready envelope is worth from twopence to two guineas, the value depending on the state the envelope is in, and the state of the purchaser's mind and purse. It is impossible for such things to be definitely valued. 2. It costs nothing to learn to swim if you apply to the Charing Cross Baths; or to the secretary, London Swimming Club, Barbican, E.C.

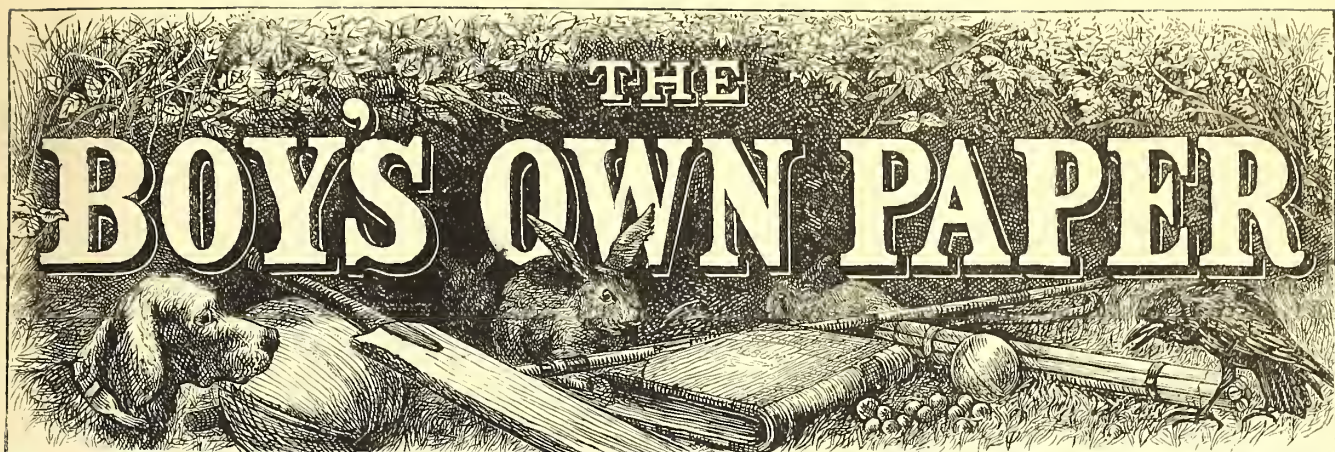
G. R. T. W. MCC.—For particulars as to grafting pine-apples on potato-runners we would advise you to consult some local specialist on mental diseases. A careful study of the lunacy laws of Buenos Ayres would be worth your while. It might decrease the postal revenue of that flourishing State, but it would keep you out of danger.

ROSE.—The best form of visiting card gives the Christian and surname in full, and the prefix Mr. The absence of the Mr. is of American origin, and is slowly coming into vogue. The neater the writing of the card the better. It should be printed from an engraved copper-plate, with as few turns and flourishes as possible. The address should be in a smaller character at the left-hand bottom corner.

J. G. W. ANGLER.—1. The fly depends on the locality and the day on which it is used. What will do on a dull day will not do on a bright one. 2. The thinner your gut and finer your tackle the more chance you will have of success; but the line must be strong enough to hold the fish when you have hooked him. 3. May.

G. K. O.—The "Commercial Code of Signals," and the "Mercantile Navy List," can be obtained from any nautical bookseller. Try Wilson, of the Minories; Potter, of the Poultry, etc., etc.

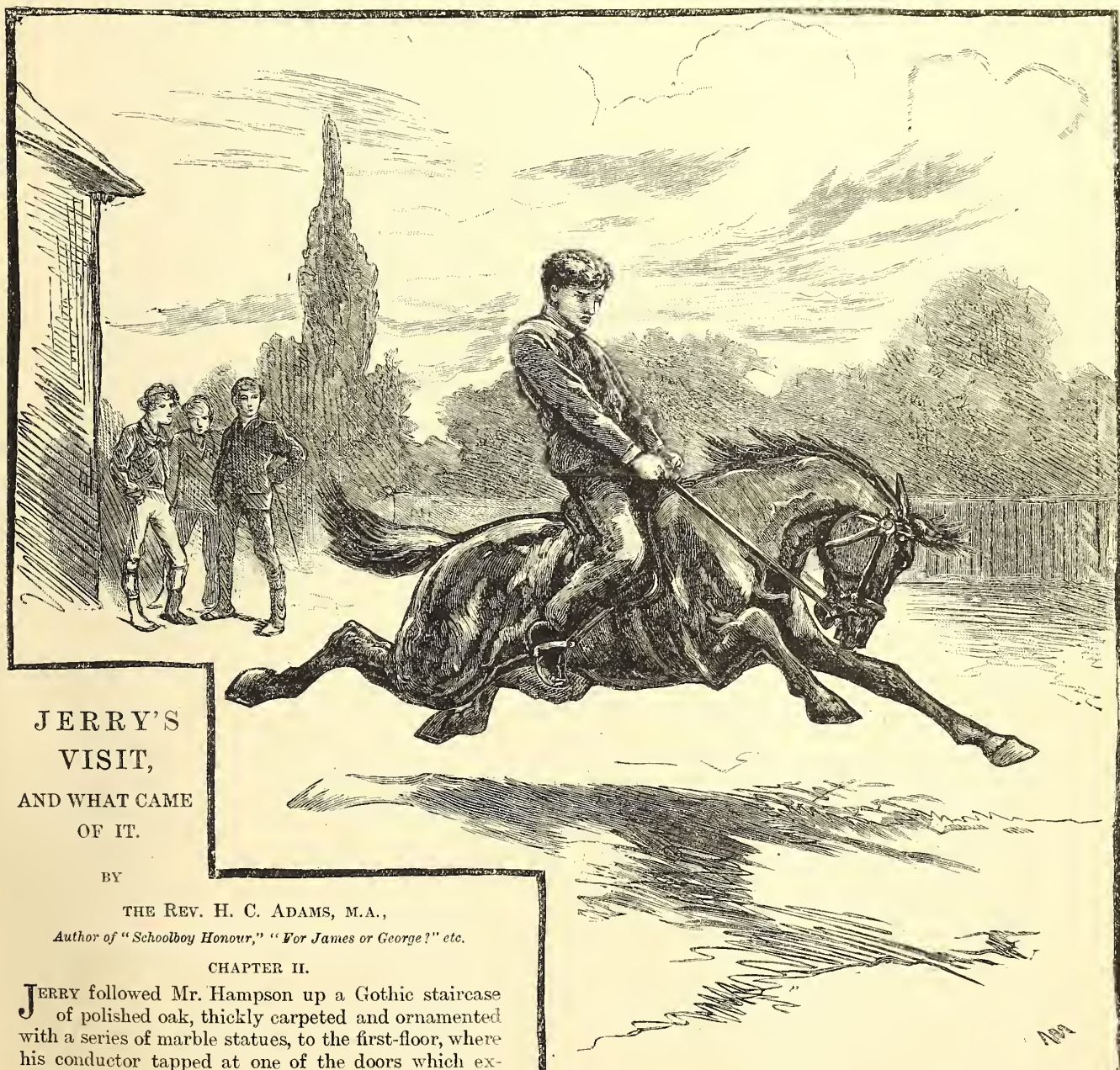




No. 304.—Vol. VII.

SATURDAY, NOVEMBER 8, 1884.

Price One Penny.
[ALL RIGHTS RESERVED.]



**JERRY'S
VISIT,
AND WHAT CAME
OF IT.**

BY

THE REV. H. C. ADAMS, M.A.,

Author of "Schoolboy Honour," "For James or George?" etc.

CHAPTER II.

JERRY followed Mr. Hampson up a Gothic staircase of polished oak, thickly carpeted and ornamented with a series of marble statues, to the first-floor, where his conductor tapped at one of the doors which extended in a double row along a spacious gallery, and received an order to enter. The next moment Jerry

"Charlie, feeling a new rider on his back, laid down his ears."—P. 103.

found himself inside a small but beautifully decorated room, where a lady and gentleman were sitting by the fire. They both rose, and the lady, after exchanging a few words with Hampson, came forward to where Jerry was standing, and, grasping him warmly by the hand, bent forward and kissed him two or three times. Jerry was at an age when boys are apt to dislike, or, at all events, to shrink awkwardly back from, such salutations. But he felt no such disposition on the present occasion. The lady, though past the *première jeunesse*, was both handsome and graceful, and the cordiality of her manner would have reconciled him to the caress, even had she wanted these attractions.

"My dear Jerry," she exclaimed, "it is such a happiness to me to see you at last."

Jerry was on the point of assuring her that it was through no disinclination on his part that they had not met long before, when he was interrupted by the gentleman, who exclaimed, in a tone of mingled surprise and vexation,

"Are you really Jerry Mannering?"

"If I am not," answered Jerry, surprised, and a little put out at the tone of the speaker, "I don't know who I am."

Jerry took a good look at his questioner as he spoke. Mr. Henry Mannering was a handsome man of, it might be, five-and-thirty, with dark-brown hair and eyes, and his face would have been very pleasing but for its sullen expression. He seemed about to make another remark in the same style as the first, when his sister interposed.

"Why shouldn't he be Jerry Mannering, Henry?" she asked. "Do you suppose Clara would send us a counterfeit! Jerry," she continued, anxious to divert matters into a pleasanter channel, "you must be hungry, though I hope you got luncheon before you started."

"Well, aunt," said Jerry, "I *should* like something to eat. I have had nothing since nine o'clock this morning."

"Poor boy, you must be famished! Tea has been laid out in the next room for you, but I'll tell Hawkins to bring you up something more substantial."

Jerry followed her into the next room, where a tea-table had been set out. But the tea-things were now removed, and the board spread with raised pie and cold partridge, together with some appetising accessories. Upon these viands Jerry fell to work with the healthy appetite of a schoolboy, and made such a meal as his memory never supplied the like of. Miss Mannering watched him for some time, and then went back to her brother in the boudoir. She found him pacing the room in a very dissatisfied frame of mind. He addressed her as she entered.

"Rose, I protest against this boy being taken into my father's room—at all events until he has been properly spoken to and told to hold his tongue. It will be at the risk of my father's life if it is done, and I will not allow it."

"There must be risk, of course, Henry," she answered, "risk any way. But Dr. Staines thinks there may be more risk in crossing papa than in the excitement of the interview. As for speaking to the boy, Hampson tells me he knows nothing of the unhappy differences that have arisen, and surely he had better remain in ignorance. You had better trust to my father's not referring to them."

"I don't think so," returned Mr. Mannering. "I don't think it will be safe or proper for the interview to take place. Early to-morrow I shall speak to Staines on the subject. If my father's life is to be endangered, I at least will do my best to prevent it. I wish you good night now."

Rosalie looked annoyed, but she made no reply. After sitting for a quarter of an hour lost in thought, she got up and went into the next room, where Jerry had now finished his repast.

"I suppose you will not be sorry to go to bed now," she said. "It is past ten o'clock, and you have had a tiring day."

"All right," said Jerry, "I am quite ready for bed, if you will show me where I am to sleep."

"I have had you put into the next room to mine," she said, "close by. Come with me and I will show you."

Jerry obeyed and was ushered into a bedroom as handsomely furnished as those he had already seen. There was an Arabian bedstead of polished brass, a Spanish mahogany wardrobe, and dressing-table. The room was carpeted in the centre, and the floor round it stained and polished. A bright fire was burning on the hearth, and in one corner a large bath stood ready for use.

The boy looked round him with a mixture of wonder and satisfaction. He felt something like the one-eyed calender in the castle of the hundred complaisant young ladies, and muttered to himself a regret that he had not long before made the acquaintance of so extremely desirable a relative. He was on the point of wishing Rosalie good night, when there came a knock at the door, and she was called out by a servant.

There was a whispered consultation in the passage, of which a few sentences reached Jerry's ears. "My master insists, ma'am," he heard the servant say. "I reasoned with him and prayed him, but it was no use." "But he must be undressed," Miss Mannering answered, "and in bed by this time. He ought to be, at all events." "No doubt, ma'am," was the answer; "but he wouldn't undress. He heard Master Jerome had come, and declared he would see him before he went to bed." "Won't he be satisfied if I promise to bring the boy as soon as Sir Jerome is up?" "I don't think it would be of the least use, miss. He only gets more angry the more you talk to him." "Very well, then, the boy must go. Return, and we will follow."

She re-entered the bedroom and told Jerry to put on his jacket again, which he had just taken off. "Your grandfather wants to see you at once," she said. "Come this way. Remember to speak out, and don't be afraid."

Once more the boy followed her as she traversed the whole length of the gallery, until they reached a door leading into a suite of apartments at the south-western corner of the house. Opening this, she exchanged a few words with some one, and then called to Jerry to enter.

He complied, and found himself in a larger and handsomer apartment than any he had yet seen. The walls were lined with bookcases of carved oak, and the spaces above them hung with pictures. In the centre of the soft Persian carpet was a large library-table strewed with books, magazines, and newspapers. Between it and the fire stood an invalid's chair, in which, half sitting, half re-

clining, appeared the figure of an elderly gentleman, wrapped in a warm dressing-gown, and having his legs swathed in flannel. His face and hands, and all of him that was visible, were attenuated by illness, or, it might be, by the waste of years. There was an angry flush on his face, and his eye no sooner lighted on Miss Mannering than he proceeded to discharge upon her the vials of his wrath which, it was evident, were full to overflowing.

"What is the meaning of this, Rose?" he exclaimed. "Am I, or is some one else to be master in this house? I desired that this boy might be brought, that I might see him at once. I have no doubt one glimpse of him will be enough, and I shall not be troubled any more about him. But see him I will, and at once—"

"He is here, sir," interposed Rosalie. "Jerry, come forward."

"Here! Where?" exclaimed the baronet. "Hey! What! is this the lad? Really! you don't mean it! Come here, Jerry, and shake hands," he continued, looking with a mixture of astonishment and satisfaction at his young visitor. "Well, I can hardly believe it! My eyes and hair, I vow! and just such a look as I had when I came home from my first half at Eton! Well, this is a surprise!"

It may here be remarked that Sir Jerome's memory must have been somewhat affected, either by age or personal vanity, when he made these assertions, for although the colour of his eyes and his hair in the days of his youth might have resembled those of Jerry Manwarding, there was no similarity of feature between them. Sir Jerome, however, was otherwise persuaded, and continued to give vent to his satisfaction.

"What on earth does Henry mean by telling me that the boy is a regular milk-sop, and an out-and-out Hartley? He hasn't got the trace of a Hartley about him! And I'll be bound he's no more of a milk-sop than I am! Surely you could run a mile, Jerry, couldn't you?"

"Run a mile!" repeated Jerry; "I should think so! Why, an old woman could do that! Our paper-chases take us sometimes a good three at a stretch!"

"And can play cricket and football?" pursued the baronet.

"We don't play at much else in our school," was the answer.

"And are not afraid to mount a pony?"

"Afraid! I should say not indeed!" shouted the boy. "I'm not such a muf! as that, any way! Just you give me one, and see whether I won't put him over a hurdle or two, that's all!"

"And so you shall, my boy, so you shall!" cried the delighted baronet. "You shall have one to-morrow, and I'll have the hurdles put up on the lawn, and sit at the window to see you leap your pony over them. I suppose you get into scrapes at school sometimes, don't you, Jerry?"

"Sometimes," answered Jerry, demurely.

"Suppose you tell me one of them now, Jerry."

"Well, I don't mind—" began the lad.

"My dear father," put in Rosalie, "you are exciting yourself too much; you are, indeed. Dr. Staines, you know, insisted on your being kept quiet. Jerry can come back to-morrow morning."

"I'll have it to-night, that's positive

He may go as soon as he has told his story, but not before. Go on, my boy."

"Well," said Jerry, "I got into a scrape about a month ago. Bob Toller and Dick Raynes and I were out for a chivvy on Loxleigh Down, when we met a fellow with a terrier and a sack on his shoulder. Bob Toller knew him, and asked if he hadn't a badger in his bag. He said yes, and if we'd give him a shilling apiece he'd let us hunt him. We seraped together half-a-crown between us, and he turned the badger out. Wasn't it prime fun just! We chased him over the rocks, and through the ditches, for a good mile and a half, and caught him at last close

to Wreford Mill. Just as the badger and dog had pinned one another, up comes Poker Williamson—the second master, you know—we call him 'Poker' because he's so precious stiff. He asks us what we were about, and sends us home double-quick. But I don't think he'd have punished us if it hadn't happened just at that moment that Dick Raynes, who had been busy at the badger's tail, gave him such a prod that he let go the terrier and seized Williamson by the leg, just above the shoe, you know."

"Did he? Ha! ha!!" chuckled Sir Jerome. "I'd have given five pounds to see it. And what did you do?"

"We were all three in a fine fright, and cut for it as hard as we could. We could hear Williamson yelling half a mile off. Bill Raggett—that's the fellow with the badger—told us he had a toughish job to get the badger to let go, and the old Poker limped about, stiffer than ever, for a week to come. Raynes was swished, and we did double lessons for a week, but Williamson forgave us when his leg got well."

"To be sure he did. He couldn't help it. Well, Jerry, I suppose we must say good night now. But I'll remember about the pony to-morrow."

(To be continued.)

THE GREAT CANALS.

II.—PANAMA.

ON November 16, 1839, the Suez Canal was formally opened by De Lesseps's relative the Empress Eugenie; on September 4th of the following year the illustrious lady had to fly from Paris, and it was De Lesseps who assisted her to escape and accompanied her to England. After this brief relapse into politics, the great projector set to work on other mighty schemes—one of them the improvement of Algeria and Tunis by letting the Atlantic into the Sahara, the other another union of the oceans by cutting through the Isthmus of Panama. In the first matter little has yet been done, in the second a meeting took place at Paris in May, 1879, at which the route was chosen, and the canal is now being made.

It runs from Aspinwall to Panama, almost along the line which Balboa took when he crossed the isthmus and, wading to his waist into the Pacific, struck the wave with his sword and claimed the ocean for the King of Spain. There could not well be a greater contrast than that which exists between the Isthmus of Suez and that which connects the Americas. One is a mere sandy desert flat, the other abounds in hills and glades of luxuriant vegetation. "Clusters of crimson, white, and blue blossoms crown the trailing plants and orchids; parasites, marsh lilies, ferns, and purple-topped osiers grow together, forming a kind of floral paradise"—and "valley of the shadow of death," for where the plants abound most there hangs thickest the malaria cloud that sweeps off the labourers by the dozen.

Aspinwall or Colon—so-called after Christopher Colon, better known to the world under his Latinised name of Columbus, who landed there in 1502, ten years after his discovery of Watling Island on his first voyage, and five years after the Bristol men under the English-born Cabot had struck the mainland to the north—is, at present, a poor straggling town on a sandy beach with nothing remarkable about it but its dirt and shabbiness. Panama, on the Pacific side, is a town of a different stamp, though not now very flourishing. Familiar to us through the exploits of Francis Drake and of Morgan, D'Olonio and the buccaneers, to whom it afforded rare plunder, the old Spanish city, founded in 1593, has had an eventful history. Huge pieces of masonry and moss-clad columns scattered about its picturesque ruins tell of the high estate from which it has fallen, to revive again under the care of the canal which will enter the sea about a mile to the north of it.

The first to project a canal across the American isthmus was none other than Hernando Cortes, the conqueror of Mexico. He, however, instead of the Panama route, selected the one that even in these days has many supporters, that across the Mexican territory at Tehuantepec to the west of

Yucatan. Here the land is one hundred and forty miles across, more than double the width at Panama, though the greatest elevation that would have to be cut through would be 656 feet. This means a considerable increase of labour, and increased cost, to set against which, however, is the probability that sailing vessels as well as steamers would make much use of the road.

For the Lesseps canal will suit steamers only. Panama Bay is in the centre of the great belt of calms, and there is an entire absence of wind for weeks at a time. Instances are on record where ships have had to be towed for five hundred miles out to sea in search of a wind, and one, H.M.S. Herald, was actually taken seven hundred miles from land before she got a breeze! Of the persistence of these calms an eloquent story is told by the Galapagos Islands, where the domestic animals of the early colonists now run wild. Although within six hundred miles of Panama, and five hundred from the coast of South America, communication with them is cut off from the north and east, and they are now deserted. They lay quite out of the world, and not a breath of wind swept over them to waft a canoe to the mainland.

In addition to the calms there is to be taken into consideration the prevailing set of the wind. Going out to Australia through the Lesseps canal sailing vessels will have an easy time of it before a quartering breeze; but as to coming home! The journey will be a dead beat, and not a few seamen tell us that the clippers will get back soonest round the Horn. Even steamers, on account of the stiff strong breeze in their teeth, will have to go north about, pass the offings of Realejo, and run down the coast. There is a great difference between the straightest line on a globe and the shortest road at sea.

It is on account of these difficulties as to the calms and prevailing winds—and of another but trifling drawback, the excessive wet at Panama, where the rainfall is one hundred and twenty-four inches a year, and the wet months are nine or ten in number—that the Tehuantepec route is favoured, as by crossing so much farther to the west—nearly a thousand miles—the wind along the road would be brought round to a more workable angle.

Between Tehuantepec and Panama, however, is a third route, along which a canal will be open before very long. It is that favoured by the United States Government. The route is far enough north to avoid the difficulties of head winds and no winds, and although two hundred miles in length, runs for fifty-six and a half miles through a magnificent lake deep enough and large enough to take all the navies of the world. This is Lake Nicaragua, and out of it at Masaya, the so-called "Constantinople of the future of the New World," flows the River St. Juan,

which reaches the Atlantic after a course of one hundred and nineteen miles, and whose channel has to be cleared and rapids cut down to make it navigable throughout. Of the two hundred miles there are thus left very few for the canal proper, and about these there seems to be little difficulty. This Nicaragua canal will be a "locked" one, as that across Panama is to be, according to the latest advices.

The Lesseps canal, however, across the Darien Isthmus is that which now claims most attention. It leaves the Atlantic about a mile north of Colon, and skirting the Chagres river and the railway, crosses almost due south to Panama Bay. At times the river, the railway, and the canal run alongside of each other, as at Culebra, which is thirty-seven miles from Colon. This place is in the thickest of the malarious districts, but the scenery in the neighbourhood is singularly picturesque and diversified. At Buenavista we have another beautiful valley by no means improved by the canal works, which there seem in full swing, the great steam navy eating his way into the cliff in telling style. Buenavista is the principal centre for the mechanical appliances used on the works, and is a station of considerable importance. Gatoon, a little farther on, is another busy settlement. Work is being carried on all along the line, and on every hill and slope excavating, boring, blasting, and tunnelling are in progress. Gangs of labourers from fifty to three hundred in number are slicing the slopes into precipices or clearing the road for the waterway through the primeval forest in the valleys below. To Colon come the masses of machinery, which are all made in Belgium, sent out in segments, and here put together. Day and night the hammers ring and the forge fires glow. For the machinery required is enormous, and the work it has to do is no child's play. Colon has thus a charm of its own, though its inhabitants are a very miscellaneous lot, and chiefly consist of mere desperadoes, "the dregs of the Colombian States, who perpetrate crime without fear of punishment." The natives of the interior are, however, of different type, and are singularly inoffensive and affable—so long as they are unmolested.

How long the canal will take to make is somewhat doubtful, but it is officially announced to be open "in two years' time." Like most other great works, it is principally a question of finance. Given the money, we get the men; and given the men, we get the work. De Lesseps at present leads the way across the isthmus, but he has five competitors all anxious to excel or hinder him. First there is the company under the patronage of the United States Government with the Nicaragua route, then come the Tehuantepec projectors, then the shallow-water canal people, who recommend hoisting the ships on to

pontoons and towing them over on a dry dock. The fifth scheme for joining the seas is that of the railway with the huge aquarium in which the vessels are to float; the sixth the "ship railway" of Captain Eads, in which the vessel is to be shored up on a "cradle

truck" and dragged along by locomotives hooked on around it—a scheme startling enough but not very novel, it having been introduced over here some twenty years ago by the Honduras minister. While others are talking, however, De Lesseps is working, and

despite the unexpected difficulties, financial, political, and technical, is making steady progress, and bids fair to keep his word and open the Panama Canal in 1886.

(THE END.)

THE STAR OF THE SOUTH

A TALE OF THE DIAMOND FIELDS.

BY JULES VERNE,

Author of "The Boy Captain," "Godfrey Morgan," "The Cryptogram," etc.

CHAPTER V.—THE DIGGERS AT WORK.

THE next morning the two partners set to work. Their claim was near the boundary of the Kopje, and, if Cyprien's theory was correct, ought to prove a very rich one. Unfortunately, the claim had already been overhauled, and had been driven down into for a hundred and fifty feet or more.

In one respect this was an advantage, as its owners, by finding themselves below the level of the neighbouring claims, were

men cut away a certain quantity of earth from the mass. That done, one of them went to the surface and hauled up along the wire rope the bucketsful sent him from below.

This earth was then taken in a cart to Steel's hut, and there, after being crushed with wooden billets, so as to clear away the worthless pebbles, was passed through a fine sieve and separated from the tiniest stones, which were all carefully picked

When it had been turned out on to the table, the two diggers sat down, and, armed with a sort of scraper made out of a piece of tin, went over it carefully, handful by handful, and then threw it under the table, whence, when the examination was over, it was taken and thrown away as rubbish.

All this was to find out if it contained any diamonds, no matter how small. The partners thought themselves very lucky when the day had gone if they had found but one solitary specimen. They worked with great eagerness, and minutely tried through the earth, but during the earlier days the results were almost negative.

Cyprien seemed to stand no chance whatever. If a tiny diamond was found in the earth it was always Steel who noticed it. The first one he found did not weigh, gangue and all, more than the sixth of a carat.

The carat is a weight of four grains. A diamond of the first water—that is to say, pure, limpid, and colourless—is worth, once it is cut, about ten pounds if it weighs a carat. But if smaller, diamonds are very much less valuable in proportion. Larger ones increase in value at a very rapid rate. Generally speaking, a stone of pure water is equal to the square of its weight in carats multiplied by the current price per carat. Thus if the price per carat is ten pounds, a stone of the same quality weighing ten carats would be worth a thousand pounds.

But stones of ten carats, and even of one carat, are very rare, and that is why they are so dear. And, besides, the Griqualand diamonds are nearly always yellowish in colour, and that greatly detracts from their value in jewellery.

The finding of a stone weighing the sixth of a carat, after seven or eight days' work, was a very poor return for the trouble it had cost. At that rate it would pay better to go out and dig, to look after sheep, or to break stones on the road. So thought Cyprien to himself. But the hope of coming across a splendid diamond, which would pay them at one stroke for the work of many weeks, or perhaps of many months, sustained him as it sustained all the other miners, even those least sanguine. Steel worked like a machine, and did not think at all—at least, he did not seem to do so.

The partners generally breakfasted together, contenting themselves with sandwiches brought from a bar close by; but they dined at one of the numerous ordinaries, like the rest of those in camp.



"Hauled up along the wire rope."

entitled, by the custom of the country, to all the earth and all the diamonds that fell into it.

The proceedings were very simple. By means of the shovel and pickaxe the two

over before being rejected. Then the earth was sifted through a still finer sieve to get rid of the dust, and then it was in a fit condition to be looked over for the diamonds.

The evenings they spent apart, Cyprien generally visiting the farm for an hour or two.

There he frequently had the disagreeable necessity of meeting his rival, James Hilton, a large man with red hair and freckled face. This rival was evidently making great progress in the esteem of John Watkins by dint of drinking more gin and smoking more tobacco than he did himself.

Alice, it is true, seemed to have the most perfect contempt for the clownish manners and commonplace conversation of young Hilton. But his presence was simply insupportable to Cyprien, who could not stand him at any price, and consequently took his departure, and left the field clear for him.

"The Frenchman is not satisfied!" Watkins would say to his companion, giving him a wink. "It seems that diamonds don't come by themselves into the shovel;" and Hilton would laugh loudly at the joke.

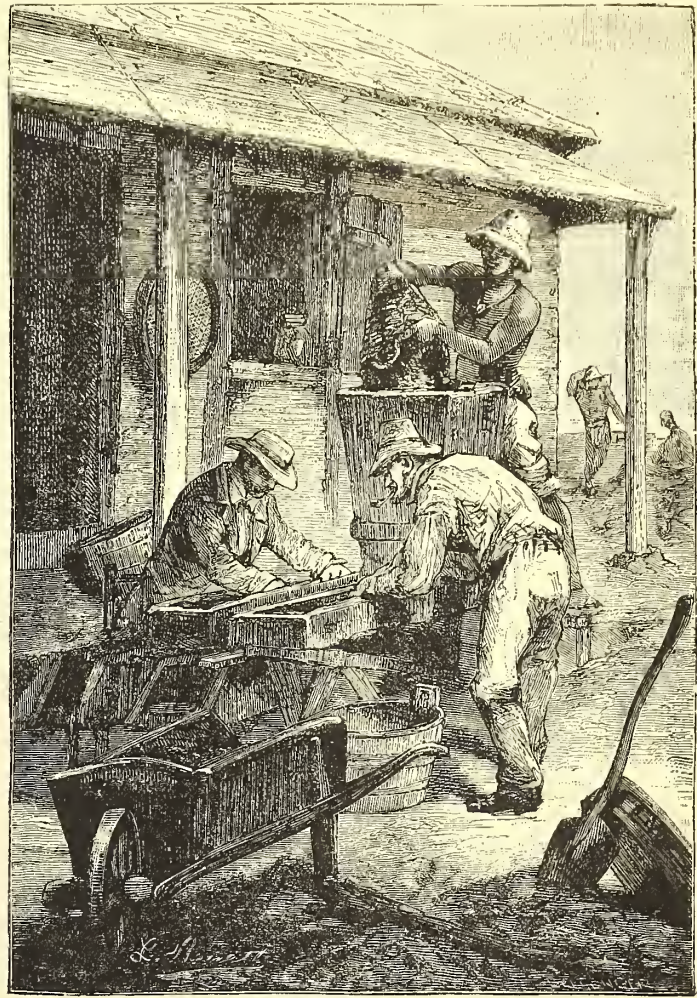
Often on these occasions Cyprien would finish his evenings with an old Boer living near the camp, whose name was Jacobus Vandergaart.

It was from him that the Kopje took its name, for he had been the freeholder in the early days of the concession. But, if he was to be believed, he was, by some gross piece of injustice, dispossessed in favour of Watkins. Now he was completely ruined, and lived in an old mud hut, earning a living by diamond-cutting—a trade he had formerly followed in his native town of Amsterdam.

It often happened that the diggers, curious to know the exact weights that their diamonds would be once they were cut, would bring them to him sometimes to cleave them, sometimes to submit them to more delicate operations. But this work required a sure hand and keen eyesight, and old Jacobus Vandergaart, excellent workman though he had been in his time, had now great trouble in executing his orders. Cyprien had given him his first diamond to mount in a ring, and had immediately taken a fancy to him. He liked to come and sit in his

humble workshop and have a chat, sometimes even merely to keep him company

and long nose, surmounted by a pair of round spectacles, looked like an alchemist



"Sifted through a fine sieve to get rid of the dust."

while he worked at his lapidary's wheel. Jacobus Vandergaart, with his white beard, bald head, and black velvet cap,

of the fifteenth century seated among his quaint old tools and acid flacons.

(To be continued.)

GREAT AFRICAN EXPLORERS.

SIR SAMUEL BAKER.

AT Gondokoro, as we have seen, Speke and Grant met Mr. and Mrs. Baker on their way to the south in search of those headwaters of the Nile, the principal of which they had been so fortunate as to discover. Baker was not the first to attack the problem from its northern side, but he was the first to succeed. He had arrived at Korosko in April, 1861, crossed the desert on camels, and left Berber in June on a preliminary exploration in Abyssinia among the tributaries of the mighty river. Arriving at the junction of the Great Atbara with the Nile, he found the bed of that affluent almost dry, but a week afterwards, while camped on its bank, there came a sound as of thunder in the night, and the water spread itself over the glittering mud, and gradually rose until the full width was reached. Then he went on to Cassala, and, hunting and exploring, moved

about from one subsidiary stream to another for nearly two years, making great friends with the Hamran Arabs, those extraordinary Nimrods who hunt and kill wild animals of every sort, from the antelope to the elephant, with no other weapon than the sword, and who defend themselves with oval and circular shields of rhinoceros hide or the almost equally tough skin of the giraffe. The average sword of these gallant hunters is a yard long, and has a five-and-a-half-inch hilt and a blade of nearly two inches across, almost as sharp as a razor. With no knowledge of swordsmanship, they never parry with the blade, but trust entirely to the shield, and content themselves with slashing either at their adversary or at the animal he rides. "One good cut delivered by a powerful arm would sever a man at the waist like a carrot."

Of the extraordinary bravery and address of these Arab hunters Sir Samuel's book on "The Nile Tributaries of Abyssinia" is full. The description of one of the elephant hunts may serve as an example. "The three aggageers came galloping across the sand like greyhounds, and, judiciously keeping parallel with the jungle, cut off the elephant's retreat, and confronted him sword in hand. At once the furious beast charged straight at the enemy, but instead of leading the elephant by the flight of one man and horse, according to their usual method, all the aggageers at the same moment sprang from their saddles, and upon foot in the heavy sand attacked the elephant with their swords. No gladiatorial exhibition in the Roman arena could have surpassed this fight. The elephant was mad with rage, and nevertheless he seemed to know that the object of the hunters was

to get behind him. This he avoided with great dexterity, turning as it were upon a pivot with extreme quickness, and charging headlong, first at one and then at another of his assailants, while he blew clouds of sand in the air with his trunk, and screamed with fury. Nimble as monkeys, nevertheless the aggressors could not get behind him. The depth of the loose sand was in favour of the elephant, and was so much against the men that they avoided his charges with extreme difficulty. It was only by the determined pluck of all three that they alternately saved each other, as two invariably dashed in at the flanks when the animal charged the third."

Of course the elephant was killed. Here is a description of a rhinoceros hunt even more graphic and exciting. "The two rhinoceros were running neck-and-neck like a pair of horses in harness but bounding along at tremendous speed within ten yards of the leading Hamran. This was Taher Sheriff, who, with his sword drawn, and his long hair flying wildly behind him, urged his horse forward in the race, amidst a cloud

like claw that was all that remained of a hand, but with his naked sword grasped in his right, he kept close to his brother, ready to second his blow. Abou Do was third, his hair flying in the wind, his heels dashing against the flanks of his horse, to which he shouted in his excitement to urge him to the front, while he leant forward with his long sword in the wild energy of the moment, as though hoping to reach the game against all possibility. I soon found myself in the ruck of men, horses, and drawn swords. There were seven of us, and passing Abou Do, whose face wore an expression of agony at finding that his horse was failing, I quickly obtained a place between the brothers. The horses were pressed to the utmost, but we had already run about two miles, and the game showed no signs of giving in. On they flew—sometimes over open ground, then through low bush, which tried the horses severely; then through strips of open forest, until at length the party began to tail off and only a select few kept their places. Only four of the seven remained, and we swept down an incline, Taher Sheriff still leading

he ran like an antelope for the first hundred yards. I thought he would really pass us and



Lady Baker.



Sir Samuel Baker on the march.

of dust raised by the two huge but active beasts, that tried every sinew of the horses. Roder Sheriff, with the withered arm, was second; with the reins hung upon the hawk-

and Abou Do the last! His horse was done, but not the rider; for, springing to the ground while at full speed, sword in hand, he forsook his tired horse, and, preferring his own legs,

win the honour of the first blow. It was of no use; the pace was too severe, and, although running wonderfully, he was obliged to give way to the horses. Only three now followed the rhinoceros—Taher Sheriff, his brother Roder, and myself. I had been obliged to give the second place to Roder, as he was a mere monkey in weight, but I was a close third. The excitement was intense. We neared the jungle, and the rhinoceros began to show signs of flagging, as the dirt puffed up before their nostrils, and with noses close to the ground, they snorted as they still galloped on. Oh, for a fresh horse! 'A horse! a horse! my kingdom for a horse!' We were within two hundred yards of the jungle, but the horses were all done. Tetel reeled as I urged him forward. Roder pushed ahead; we were close to the dense thorns, and the rhinoceros broke into a trot; they were done! 'Now, Taher, for-r-a-a-r-r-d! For-r-r-a-a-r-d, Taher!!' Away he went; he was close to the very heels of the beasts, but his horse could do no more than his present pace. Still he gained upon the nearest; he leaned forward with his sword raised for the blow—another moment, and the jungle would be reached! One effort more, and the sword flashed in the sunshine as the rearmost rhinoceros disappeared in the thick screen of thorns with a gash about a foot long upon his hind quarters."

Amid many stirring adventures such as this, among elephants, lions, crocodiles, hippos, antelopes, giraffes, etc., etc., Baker carried on his observations, and familiarised himself with the Arab language and customs, returning to Khartoum in June, 1863. He had visited the seven streams of Abyssinia—the Atbara, Seltite, Salaam, Angareb, Rahad, Dindu, and Bahr-el-Azrek—and solved the secret of the rising by showing that the river receives its steady flow of water from the central lakes, while the flood waters that cause the overflow pour in almost exclusively from these streams that rise in the Abyssinian highlands.

After a long delay at Khartoum the explorer and his wife started for the south, and at Gondokoro were the first Europeans to welcome Speke and Grant. Obtaining copies of their maps and much valuable information, the Bakers pushed on, and notwithstanding their numerous following, and many difficulties with Ibrahim, the ivory (or rather slave) trader, and others, succeeded in reaching Kamrasi's capital at Mrooli. At Kamrasi's they had a long detention, and they only quitted that designing monarch after he

had exhausted every device to prevent their advance. Unyoro was fraught to them with anything but pleasant memories. Perhaps the calamity which befell them as soon as they had got rid of the king had better be left for Sir Samuel himself to describe. He says in his "Albert Nyanza":—"On the following morning we had the usual difficulty in collecting porters, those of the preceding day having absconded, and others were recruited from distant villages by the native escort, who enjoyed the excuse of hunting for porters, as it gave them an opportunity of foraging throughout the neighbourhood. During this time we had to wait till the sun was high, and we thus lost the cool hours of morning and increased our fatigue. Having at length started, we arrived in the afternoon at the Kafoor river, at a bend from the south where it was necessary to cross over in a westerly course. The stream was in the centre of a marsh, and although deep, it was so covered with thickly matted water-grass and other aquatic plants that a natural floating bridge was established by a carpet of weeds about two feet thick. Upon this waving and unsteady surface the men ran quickly across, sinking merely to the ankles, although beneath the tough vegetation there was deep water. It was equally impossible to ride or to be carried over this treacherous surface; thus I led the way, and begged Mrs. Baker to follow me on foot as quickly as possible, precisely in my track. The river was about eighty yards wide, and I had scarcely completed a fourth of the distance, and looked back to see if my wife followed close to me, when I was horrified to see her standing in one spot and sinking gradually through the weeds, while her face was distorted and perfectly purple. Almost as soon as I perceived her, she fell, as though shot dead. In an instant I was by her side, and with the assistance of eight or ten of my men, who were fortunately close to me, I dragged her like a corpse through the yielding vegetation, and up to our waists we scrambled across to the other side, just keeping her head above water. To have carried her would have been impossible, as we should all have sunk together through the weeds. I laid her under a tree and bathed her head and face with water, as for the moment I thought she had fainted; but she lay perfectly insensible as though dead, with teeth and hands firmly clenched, and her eyes open but fixed. It was a sunstroke.

"Many of the porters had gone on ahead with the baggage, and I started off a man in haste to recall our angarep upon which to carry her, and also for a bag with a change of clothes, as we had dragged her through the river. It was in vain that I rubbed her heart, and the black women rubbed her feet, to endeavour to restore animation. At length the litter came, and after changing her clothes she was carried mournfully forward as a corpse. Constantly we had to halt and support her head, as a painful rattling in her throat betokened suffocation. At length we reached a village, and halted for the night.

"I laid her carefully in a miserable hut, and watched beside her. I opened her clenched teeth with a small wooden wedge, and inserted a wet rag, upon which I dropped water to moisten her tongue, which was dry as fur. The unfeeling brutes that composed the native escort were yelling and dancing as though all were well; and I ordered their chief at once to return with them to Kamrasi, as I would travel with them no longer. At first they refused to return; until at length I vowed that I would fire into them should they accompany us on the following morning. Day broke, and it was a relief to have got rid of the brutal escort. They had departed, and I had now my own men, and the guides supplied by Kamrasi.

"There was nothing to eat in this spot. My wife had never stirred since she fell by the sunstroke, and merely respired about five times in a minute. It was impossible to

remain; the people would have starved. She was laid gently upon her litter, and we started forward on our funeral course. I was ill and broken-hearted, and I followed by her side through the long day's march over wild park-lands and streams, with thick forest and deep marshy bottoms; over undulating hills, and through valleys of tall papyrus rushes, which, as we brushed through them on our melancholy way, waved over the litter like the black plumes of a hearse. We halted at a village, and again the night was passed in watching. I was wet and coated with mud from the swampy marsh, and shivered with ague; but the cold within was greater than all. No change had taken place; she had never moved. I had plenty of fat, and I made four balls of about half a pound, each of which would burn for three hours. A piece of a broken water-jar formed a lamp, several pieces of rag serving for wicks. So in solitude the still calm night passed away as I sat by her side and watched. In the drawn and distorted features that lay before me I could hardly trace the same face that for years had been my comfort through all the difficulties and dangers of my path. Was she to die? Was so terrible a sacrifice to be the result of my selfish exile?

"Again the night passed away. Once more the march; though weak and ill, and for two nights without a moment's sleep, I felt no fatigue, but mechanically followed by the side of the litter as though in a dream. The same wild country, diversified with marsh and forest. Again we halted. The night came, and I sat by her side in a miserable hut, with the feeble lamp flickering while she lay as in death. She had never moved a muscle since she fell. My people slept. I was alone, and no sound broke the stillness of the night. The ears ached at the utter silence, till the sudden wild cry of a hyena made me shudder as the horrible thought rushed through my brain, that, should she be buried in this lonely spot, the hyena would—disturb her rest.

"The morning was not far distant, it was past four o'clock. I had passed the night in replacing wet cloths upon her head and moistening her lips as she lay apparently lifeless on her litter. I could do nothing more; in solitude and abject misery in that dark hour, in a country of savage heathens, thousands of miles away from a Christian land, I beseeched an aid above all human, trusting alone to Him.

"The morning broke; my lamp had just burnt out, and, cramped with the night's watching, I rose from my low seat, and seeing that she lay in the same unaltered state, I went to the door of the hut to breathe one gasp of the fresh morning air. I was watching the first red streak that heralded the rising sun, when I was startled by the words "Thank God" faintly uttered behind me. Suddenly she had awoke from her torpor, and with a heart overflowing I went to her bedside. Her eyes were full of madness. She spoke, but the brain was gone.

"I will not inflict a description of the terrible trial of seven days of brain fever, with its attendant horrors. The rain poured in torrents, and day after day we were forced to travel for want of provisions, not being able to remain in one position. Every now and then we shot a few guinea-fowl, but rarely; there was no game, although the country was most favourable. In the forests we procured wild honey, but the deserted villages contained no supplies, as we were on the frontier of Uganda, and M'tese's people had plundered the district. For seven nights I had not slept, and although as weak as a reed, I had marched by the side of her litter. Nature could resist no longer. We reached a village one evening; she had been in violent convulsions successively—it was all but over. I laid her down on her litter within a hut; covered her with a Scotch plaid, and I fell upon my mat insensible, worn out with sorrow and fatigue. My men put a new

handle to the pickaxe that evening, and sought for a dry spot to dig her grave!

"The sun had risen when I awoke. I had slept, and, horrified as the idea flashed upon me that she must be dead, and that I had not been with her, I started up. She lay upon her bed, pale as marble, and with that calm serenity that the features assume when the cares of life no longer act upon the mind, and the body rests in death. The dreadful thought bowed me down; but as I gazed upon her in fear her chest gently heaved, not with the convulsive throbs of fever, but naturally. She was asleep; and when at a sudden noise she opened her eyes, they were calm and clear. She was saved!"

Soon afterwards they reached Parkani, and on 14th March, 1864, Baker sighted the lake he was in search of, shining like a sea of quicksilver, with the blue mountains lazily bounding it some sixty miles away. Descending to the lake side, Baker drank some of the water, and gave the vast inland basin the name of the Albert Nyanza. In a large canoe six-and-twenty feet long, hollowed out of a single tree, a cruise of a fortnight's duration took them to Magungo, where the Somerset, or Victoria Nile, runs in from the other lake, and this river was ascended until the Murchison Falls and other cataracts were duly visited and surveyed, and the origin and course of the stream placed beyond a doubt. The return journey was soon after commenced, and Kamrasi's obstacles being again overcome, the expedition got safely back to Gondokoro, and thence home, where a knighthood and other honours were bestowed on its leader.

In 1869 Sir Samuel Baker was appointed to the command of the expedition fitted out by the Khedive Ismail to abolish the slave trade by annexing the Soudan—an annexation that was to produce some very unexpected results. With six steamers, built in sections, and sixteen hundred Egyptian troops, Baker arrived at Khartoum in 1870, and advancing up the Giraffe had to set to work to cut a passage through the "sudd," that dense mass of drifting vegetation which bars the course of the river, and gives those horrible treeless swamps swarming with mosquitos and every tropical insect, and affording a refuge for elephants, lions, hippos, and crocodiles by the score. Two months were passed in getting through the obstruction to the channel of the White Nile, and then a dam had to be built to float the fleet, a dam made of fascines and corn sacks filled with sand, whose construction was frequently interrupted by the attacks of the larger game. Gondokoro was reached at last, and then followed a war with the Bari, and a successful campaign, marked by the disgraceful conduct of the troops, carried on under great difficulties. The advance was made to Lobore, the site of the future great city of Central Africa at the beginning of the lakes; and, in fact, the Soudan was annexed as had been planned.

Baker was succeeded by Gordon, as related in our June part, and under his energetic rule steamers ascended the Nile and navigated the Albert Nyanza, while his representatives made their way south as far as King M'tesa's court. On Stanley's arrival during his voyage in the Lady Alice, detailed at such length in our October part for 1879, he there met with Bellefouds, who had been sent down by Gordon from the north.

Stanley was not the first to cross Africa from Zanzibar to the Atlantic. That honour is claimed by Cameron, who in 1873 headed the Geographical Society's expedition in search of Dr. Livingstone, and who, finding that the doctor had died, boldly struck out for the west coast, and after carefully surveying Tanganyika and doing other good work, discovering Lake Mohyra with its curious villages of pile dwellings, and triumphing over hosts of obstacles and heart-breaking delays, emerged once more into civilisation after an absence of over three years on the journey.

SUNDAY.



CHICK MINOR'S HATS.

At "our school" (and of course other schools were of no importance) we had a strict ordinance on the subject of hats. Whenever we went into the town, or in fact outside school precincts, we had to don the college cap, better known as the mortar-board. Sunday was the only day excepted from the rule, then tall silk hats were *de rigueur*, though we did not call them "cat-skins," as in "Tom Brown," but "boxers."

Now a hat that is only worn once a week will last a long time, and as some boys, to save the trouble of taking an unpackable hat home at holiday time, used to leave it behind to do for next half, it can be easily imagined that the variety exhibited in the long procession of boys was great if not charming. Fashion was not regarded except by a few of the bigger boys, who always brought back new boxers in an astonishing state of glossi-

however, was not in much favour, as it gave a peculiar gloss which was compared to the trail left by a slug.

Chick Minor's hat was one of the most celebrated tiles of our school. He was a short fat boy with a head like a football. When his brother left school he persuaded him to transfer to him his boxer as a legacy. It did not fit Chick Minor well, being too large, but that difficulty was overcome by the insertion of paper collars inside the leather lining. When the hat was made broad brims were the fashion, but when Chick Minor obtained possession of his legacy brims were narrow. The consequence was that he looked like "a snail under a cabbage-leaf," as Wilson facetiously remarked. But Chick Minor grinned, and did not mind so long as the matron did not object, and she was only too pleased to find that his hat was presentable as regards nap. Details of fashion were beyond her ken.

But his "topper" was not the best known of his head-coverings, for it was seen but once a week, whilst his others were constantly within sight. He possessed, of course, the regulation mortar-board, and in addition a straw hat for use in the playground. It was the end of July when we came back to school, and the summer was usually at its height. A straw hat was therefore very convenient; but then summer did not last for ever, so straw hats became rather cool as the half progressed.

Not that Chick Minor's straw outlasted the hot weather. Being a junior boy he had to hang up his hat on one of a row of pegs in a recess at the end of the long schoolroom. It was more than could be expected that boys would refrain from making "cockshies" at such a tempting object. It was gorgeous to put a fives ball well into the crown; the pleasure was so great that Chick Minor himself could not always refrain.

Then egg-cap was a favourite game of the lower school, and as they played it in all weathers it told on the appearance of the straw. But the hat was a stont one, and the first real damage to it was caused by a match between its owner and Bates as to who could make his hat skim farthest. Bates operated with a disused mortar-board, Chick with his straw. The brim gave way and separated itself from the rest of the hat for a considerable distance.

That was a nuisance, as the loose brim flapped up and down in a most uncomfortable way. So to mend matters he cut it clean away.

Then came a terribly hot day, and he found that a brimless hat did not shade his eyes. The happy thought then struck him to wear the brim without the hat. This answered admirably, though he came near having a sunstroke.

He never knew when the top of the crown of his hat became split, but it did. The split grew gradually larger till the attaching hinge was but an inch or so long. However, gravitation kept it on his head when he was at rest, but if he ran against the wind the crown would rise and impede his progress. So one day he cut it off as a nuisance.

There was not much left of his hat now. The brim and the crown were gone; nothing remained but the upright circle surrounding his head. This he stuck to for some time till a mishap occurred.

He used frequently to dispense with a hat altogether, looking upon his ruined straw as more ornamental than useful. It happened, however, one day, that he put it on and forgot all about it. When the school bell rang he walked tranquilly to his place with the circle still round his brows.

This occasioned some remarks from the

YE
STRAW.



master and a stoppage of pocket-money till a new hat was procured. But Chick Minor was equal to the occasion. He made his mortar-board his everyday hat, and appealed to the matron for a new mortar-board, to be charged for in the bill at the end of the half. As it was quite time he had a new hat for the town the matron consented.

His mortar-board lasted him till the holidays, for there is a great deal of wear in mortar-boards. The tassel may come off and the corners become as dog's-eared as a school dictionary, but the top and bottom hang together in spite of almost any usage. So Chick Minor saved his pocket-money and brought back with him after Christmas a fur cap which defied ill usage!



ness. Most of the fellows did not care two straws what fashion was in, and sported tiles which had died the death a year before.

Unfortunately a "boxer" offers considerable temptation to a boy in search of mischief. It is so easily knocked off and rolls about so splendidly, affording endless opportunities for kicking. So it is perhaps hardly to be wondered at that some hats required considerable brushing before they were fit to take to church. On Sunday mornings the lavatory generally contained a dozen youngsters diligently trying to impart a superior shininess to their hats with the aid of water, or even soap and water. This latter plan,

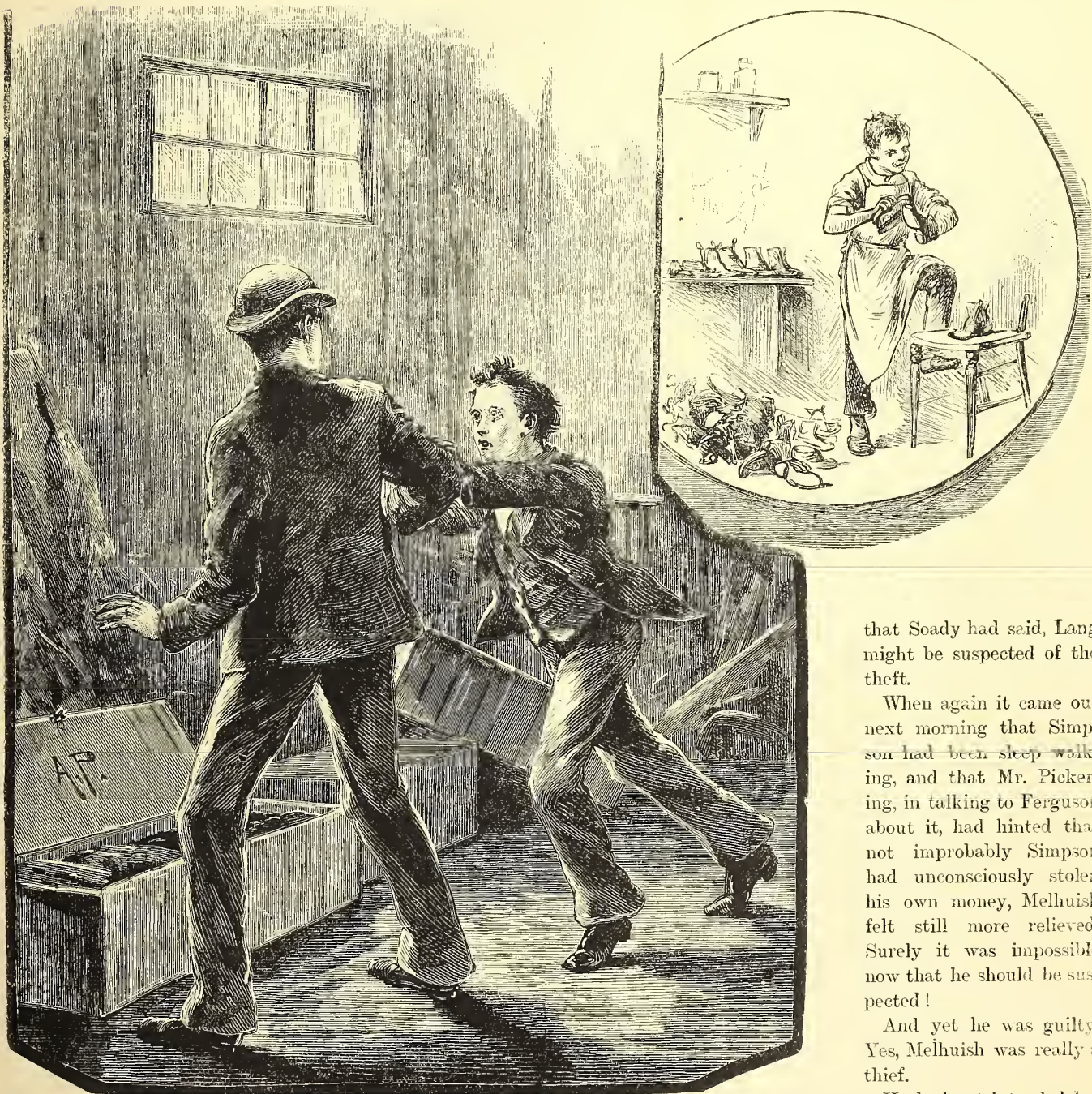
SCHOOL AND THE WORLD:

A STORY OF SCHOOL AND CITY LIFE.

BY PAUL BLAKE,

Author of "The Two Chums," "The New Boy," etc.

CHAPTER IX.



"Ah, you thief! I've caught you."

that Soady had said, Lang might be suspected of the theft.

When again it came out next morning that Simpson had been sleep walking, and that Mr. Pickering, in talking to Ferguson about it, had hinted that not improbably Simpson had unconsciously stolen his own money, Melhuish felt still more relieved. Surely it was impossible now that he should be suspected!

And yet he was guilty. Yes, Melhuish was really a thief.

He had not intended being one. When he visited the Rummage-room it had not entered his head that

It was an immense relief to Melhuish, as he lay awake listening to Soady and Tommy talking, to learn that so far from his visit to the Rummage-room being suspected, Lang was known to have been there. He half hoped that, in spite of all before he left it he would have committed a crime. But temptation came in his way; he saw a box lying un-

locked, he opened it and saw a purse. He wanted money, how badly no one knew; he put his hand in and took what he could hastily grasp. Then without breathing he shut the box and crept out into the sunlight.

No one had seen him; no one knew enough about his embarrassments to make him suspected. He was safe, and, except for the fear of detection, of which he could not rid himself, he felt more relieved than he had been for weeks.

He owed money in the town. That must be squared up first. Then he would have time to arrange matters before the time when Jenkins's account was due. Jenkins's account! He didn't like to think of that.

He was considerably in debt for him, for his allowance was a very meagre one. Two pounds odd he owed from last half, and of this fifteen shillings must be paid at once, or the tradesman had threatened to see the Doctor. Melhuish had taken thirteen shillings from the box; he had three shillings left of his own. He went "down town" that same day, and settled the most pressing claim.

Still, things were far from satisfactory. Worst of all, almost, he owed Fanshawe some money. If Fanshawe turned nasty (and Melhuish knew him well enough to believe this quite possible), he could involve him in more trouble than any one by letting his father know his difficulties. Melhuish's father was strict, even severe, and would not be inclined to look with a lenient eye on his son's senseless extravagancies.

But for the present all was safe; no one could possibly suspect him, and he even went so far as to feel a sort of amusement at the wrong scent that every one was on.

After a few days the whole thing was forgotten, except by very few. Of these, Simpson and Soady had it most at heart. The latter was bent on clearing Lang.

But Soady was as little fitted for a detective as any one could well be. He could not keep a secret, and his would-be diplomatic tricks for extracting information were transparent to the most unpractised intellect.

"Tommy," he said one day, "I know who stole Simpson's money."

"Don't believe it ever was stolen," said Tommy.

"Yes it was, young 'un; don't you contradict. 'Twas Jim."

Jim was the boy who cleaned the boots of the school, no slight job. All day his rotatory machine was whirring; as soon as one set of boots was clean another set was dirty. No one had ever seen Jim out of his apron or without a boot in his hand. He was a cheeky youngster, and a good deal of rough-and-ready chaff passed between him and the boys as they crossed the lower end of the quad, near which he had his little den, the door of which was generally open.

"What makes you think Jim took it?" asked Tommy.

"I'll tell you. He can run across the quad any time when we're all in school, don't you see? The door of the Rummage-room's never locked. And Jim has been getting more cheeky lately, and we had something in Virgil the other day about arrogance increasing with wealth."

This was of course convincing to every

properly-constituted and cultured mind. Virgil must have had Jim in his mind's prophetic eye when he penned the passage.

"How are you going to find out?" asked Tommy.

"It's a job, but you wait. Next half-holiday I mean to hide in the Rummage-room; nobody will be near the quad if it's a fine day. Then Jim may come, and if so I shall jump out and nab him!"

Tommy thought it a grand idea. Next day was a half-holiday, and the two friends proceeded to carry their plan into execution. Soady pleaded headache as a reason for not ericketing, and Tommy shirked without any excuse, as he was too much in the habit of doing. Tommy kept watch to see all was clear, and when the last boy had left the school he ran out to Soady and told him he might commence operations.

Tommy stationed himself in a hidden corner to keep watch. Soady slipped into the Rummage-room, and looked around for a good place of concealment.

"Haven't been in here for I don't know how long!" he said to himself. "What a heap of things those lower school chaps have!"

It was indeed a varied collection. Boxes of all sorts and sizes, hampers by the dozen, carpet-bags, rabbit hutches—everything.

"Don't quite see where I'm going to hide," thought the amateur detective. "I should like to get into a box, but I don't see one big enough."

Soady was not of the make to pack easily; he was inclined to stoutness, and was generally big and unwieldy. After some cogitation he decided to pile up a few of the hampers in a corner and lurk behind them.

With a good deal of trouble he managed to make a hiding-place, but it had the fault that it hid him too well—he could not see what might be going on. However, he comforted himself with the thought that he could hear the slightest sound, and if any one came in he could pounce on him in a moment.

No one came; he heard the big clock chime the half-hour, and still his patience was unrewarded. He began to feel cramped, and to be doubtful whether, after all, an equally good plan would not be to mount to the music-room and watch the door of the Rummage-room from there. He must have been rather stupid not to think of that before.

He was just about to act accordingly when he heard a sound. The door had not opened, of that he was quite certain, yet there could be no doubt that something in the room moved.

Soady listened with all his ears. But the sound was not repeated.

"It must have been one of those rabbits," he thought. "I'm tired of this, I shall go out."

He stepped from behind his barricade, which fell to the ground with a crash as he pushed his way out. Arrived at the middle of the room he took a final survey. A box close to him was standing with its lid invitingly half open.

"Wonder whose this is?" he thought. "Little fool he must be to leave his box unlocked; it's a temptation to young good-for-nothings like Jim."

He kicked the lid up with his foot to see if the box were empty. The next

moment he felt himself grasped from behind, and a voice exclaimed,

"Ah, you thief! I've caught you, have I?"

Soady shook himself free in a moment. He turned round and found himself face to face with Simpson.

"Oh, you beggar!" exclaimed the small boy, in a towering rage, "what a thief you are! I'll tell the Doctor and have you expelled, you see if I don't. You give me back the thirteen shillings you stole a week ago! Give it me back, you robber!"

Soady listened in astonishment. When he first felt the hand on his shoulder he was as surprised as if a ghost had appeared. But by the time Simpson had ended his tirade his captive had recovered his presence of mind.

"Why, you little sap," began Soady, "I came in here to hide to see if I couldn't find out who stole your money. I hadn't an idea you were hiding in here too, or I'd have saved myself the trouble."

"I dare say you would," yelled Simpson. "You think I'm going to believe what you say? Not if I know it: that thirteen shillings was about all I had, and I was going to buy a new cane-handle bat, and now I can't, and I'll make you pay for it if I have you up before every judge there is."

Soady began to feel he was in an awkward hole. There was no doubt that Simpson was dreadfully in earnest, and was quite certain he had caught the real thief. If he told the Doctor, Soady would have to explain how it was he came to be hiding there, and why he opened Simpson's box. He could not help seeing that his excuses would sound rather thin. He wished he had not been quite so anxious to convict the innocent Jim.

"Look here, young un," he said, soothingly, "you mustn't make a little fool of yourself. If you think I came here to burgle your box, why didn't I start at it directly I came in?"

"Because you were afraid."

"That's bosh, you little idiot! If you won't believe what I say you can come straight in to the Doctor with me, if you like, and we'll see what he says."

Simpson hesitated. He knew the authorities already thought he had been making a good deal of fuss about his loss, which some supposed he had himself caused. He was doubtful whether a fresh complaint would receive much attention unless accompanied by actual proof. Now, though he had caught Soady in the very act, the accompanying circumstances were not quite so suspicious as they ought to be, for Soady's conduct, supposing him to be the thief, was extraordinary.

He was still hesitating what to do when the door opened and Tommy's face appeared. It wore an astonished expression when it perceived what had happened.

"Ah, Tommy, come here," cried Soady. "You tell this little mantrap and spring-gun what we arranged to do."

Tommy obeyed, and poor Simpson had no alternative but sulkily to give in, professing even to the bitter end his belief that Soady was the real culprit. For which Soady had a good mind to pulverise him, but, having a good mind, and not a bad one, he didn't.

(To be continued.)

THE ADVENTURES OF AN
AIDE-DE-CAMP.

II.—THE RESCUE.

CAPTAIN PRENTIES kept the secret of the papers to himself, and joined the party at the house as if nothing had happened. The next morning one of the casks of apples was opened. A great treat was expected. Alas! the "apples" were a device of the roguish Jew to cheat the revenue. The cask was full of bottles of Canada balsam, valuable for varnishing and mounting objects for the microscope, but totally useless to those starving shipwrecked men.

On December 14 the last journey was made to the ship, which had now nearly disappeared, and the sails were cut away from the bowsprit to put over the roof of the hut. In the afternoon the carpenter died, his frost-bites having mortified and his limbs rotted off. The body was taken some distance from the camp, laid on the snow, and covered with branches, for the ground was too hard to think of proper burial. And now all the frost-bitten men began to suffer. On the 17th the second mate became delirious and died. Others followed, and such was the misery of the community that each death was welcomed as giving one month less for the scanty provisions to feed!

On Christmas Eve Prenties and the first mate went out on an exploring expedition, found a small river, and walked up it. On its frozen surface they came across tracks of moose-deer and other animals, but having no arms or weapons, to chase them would have been hopeless. Pursuing their walk, they found the trees cut on one side with axes, and then they came upon an Indian's wigwam covered with fresh bark, showing that it had been occupied within some recent period. Close to the wigwam was a moose-skin put up to dry on a pole. Prenties cut on a piece of bark like an index-hand, and fixing this to a pole so as to point towards the scene of the wreck, fixed the pole on the ice opposite the wigwam, and took away the moose-skin.

On their return some conversation took place between him and the mate as to the rate at which the provisions were going, as it seemed to be out of proportion to the rations. It was arranged that that night Prenties should keep watch over them. When all seemed to be sound in slumber Prenties saw the captain get up, go to the provisions, and with two of the men enjoy a hearty meal. The aide-de-camp lay still and feigned sleep, but afterwards either he or the mate was on guard in the hut, and the provisions were kept untouched.

And now it was decided that a party should leave in the boat and bring help to the others, and the boat was got ready. Her seams were open, and it was endeavoured to caulk them with dry oakum. This proved to be useless, and as there was no pitch or tar the sailors would have given up the enterprise. Prenties, however, thought of the Canada balsam, and this was melted out of the bottles and boiled in the pot till it attained the required consistency. It answered the purpose admirably, and the seams received a thorough coating. Sails were now got ready, and as the men's shoes had all gone a dozen pairs of canvas moccasins were made by Prenties out of the old jib—his needle being the handle of a pewter spoon, his thread the warp of the canvas.

On January 4th, 1781, the boat voyage began. There were six in the boat, the captain, the mate, two men, and Prenties and his servant. Prenties still wore the despatches round his waist and the servant still carried the gold. The provisions were divided with the party left ashore, and the wind proving favourable the boat rounded the precipitous headland and made her way along the coast. The first landing was at a deep bay where they found some poles and timbers on the beach and the remains of a

hut, while a little beyond was a high point of land, clear of wood and apparently cultivated. To this Prenties and two of the men made their way, and passed as they did so the remains of a Newfoundland fishing-boat that had been burnt. As they reached the top of the hill they saw a group of houses about half a mile in front of them. To these they hurried, but not a sign of life was there. The houses were the old stores of a cod-curing establishment, and had been deserted for years.

On their way back they found some cranberries, and these they gathered for themselves and companions. In the morning the wind had shifted, and to go to sea was impossible. The next day had consequently to be passed here, and the two next. On the night of the 7th, Prenties, looking out, saw that, though the wind was rougher than usual, the sea was smooth as glass. It was frozen over! The retreat by the sea was consequently cut off, and in the absence of snow, shoes that by the land was almost impossible.

On the 10th the wind changed and the ice was blown out to sea, and the following day the boat was launched and the voyage resumed. At two o'clock in the morning the weather grew so stormy that again the shore was sought, and on a shingle beach fifty yards broad and four hundred yards long and surrounded by precipices the party landed. The beach was so high that the boat could not be drawn up, and in the night she was so beaten about that all the balsam was knocked off, the timbers sprung, and she was rendered useless. Eight days were spent on this shingle ledge, and then the sea froze and Prenties and mate started off to explore along the ice. They returned for the others, and it had been decided to abandon the boat and journey on foot when a thaw came and they were again imprisoned. Suddenly an idea occurred to Prenties to freeze the boat till she was watertight. She was dragged ashore, caulked with dry oakum, and water dashed over her until she was coated with ice. She was then carefully launched, and in this frail craft, depending for her safety on the sea being just cold enough to save her icy film from melting and not too cold to bar her passage, the six desperate men put forth. Henceforward the boat voyage was conducted under these curious conditions. The rainy days had to be spent on the beach, for the thaw rendered the caulking useless. The very frosty days had also to be spent on shore, for the ice on the waves made progress impossible.

One day the mate found a partridge asleep on a tree. A noose of canvas thread was fixed to the end of a pole and dropped over its head, and, boiled in snow flavoured with salt water, the bird proved a welcome meal for the six castaways. On the 12th of February they sighted the island of St. Paul, and from the contour of the neighbouring cliffs at last made out their whereabouts. They were ashore on Cape Breton, and the Cape St. Lawrence on its northern extremity is still named after the ill-fated brigantine. Soon they rounded North Point, and then they landed. The provisions had now all gone, and they fed on a few rose-hips they found in the snow, and on the 17th, when they beached the boat for the last time, they boiled the hips with candles to make soup. Then the candles were tried with kelp, and finally on the 23rd they were reduced to feeding on the seaweed alone. This failed to nourish them, and they resolved to eat each other. Prenties still carried his despatches and the evidence of the captain's treachery, and as the captain had stolen the provisions and behaved badly throughout, the aide-de-camp and the mate resolved that he should be the first to afford a meal. For a day or two they waited. The kelp diet had caused them to swell so that they could hardly see out of their eyes, and they were so weak as to be only able to crawl and break off the smallest twigs to keep the fire in.

On the 28th, as they were preparing to kill the captain, a couple of Micmac Indians suddenly appeared. The redskins, after a careful survey, approached and addressed the party in French. For a minute or so they regarded the swollen sufferers with wonder and then marched off and left them. In three hours, however, they came back in a canoe bringing food and help. The castaways were taken to the Indian village, and there every kindness was shown them, and they were restored to comparative health. As soon as possible they told the Indians of their companions, and asked them to go to their rescue, giving them a description of the bay in which they had been wrecked. The place was known to the tribe, but it was over a hundred miles away over the hills, and they refused to go without hope of a reward. And then Prenties's servant untied his waistband and foolishly produced all the guineas he had carried so long.

Instantly a change took place in the demeanour of the Indians. Their avarice was aroused and great obviously was the temptation to murder the party for the money. By much diplomacy the danger was averted, but it was none the less continuously present. For a handsome reward they consented to fetch the other survivors of the St. Lawrence, and some of them set out for the purpose, to return in a fortnight with the only three who were left. All the others had died from frostbite or starvation. They had finished all the beef and even eaten the skin of the deer.

A bargain was now made with the Indians to take three of the party at once to Halifax and the remaining six to Spanish River to wait for the spring. The three were Captain Prenties, his servant, and a Mr. Winslow, the other surviving passenger.

And now commenced a new series of adventures, at which we can but glance. Prenties still carried his despatches, his servant had the balance of the money, and both had to be constantly on the watch, for but little confidence was felt in the Indians, whose greed had been aroused, and who, moreover, were French converts and not likely to care for the safety of an English officer. Cape Breton, though discovered by Cabot, had had a long spell of French rule, and only became finally British on its capture by Boscawen in 1756. Broad Oar was reached, and then Broad Deck and St. Peter's Lake were crossed, half on sleds, half in the canoe. Grand Grave was the next point, and thence a canoe voyage was made across the Gut to Canso, in Nova Scotia. This was the most dangerous passage of the expedition, for at Canso were several French and American privateers, who would only have been too glad to snap up the aide-de-camp. By this time, however, he had come to the conclusion that the Indians would do their duty and fulfil their contract if they could, and so he shifted the despatches to the waist of one of the redskins, and throwing away his old red coat, assumed a brown one.

The canoe reached Canso without attracting the special notice of the ships in the harbour, and Prenties called on Mr. Rust, who was nominally the British representative, but was in reality a sympathiser with the American revolutionists and in league with the privateers. Fortunately he had received a hint to this effect, and on being questioned by that worthy gave a very plausible account of his being a shipwrecked sailor. Rust, however, suspected him, and prepared to take him prisoner and hand him over. But he was not quick enough, for Prenties got wind of what was coming, and in the night escaped with his companions in the canoe. Halifax was reached at last, and thence in the Royal Oak the aide-de-camp went on to New York and delivered his tattered despatches to Clinton. The Indians returned to their homes. The captain's treachery was reported, and he was "broke;" he ended his life as a Thames pilot! The mate became the commander of a West India trader.

ARMOUR IN HISTORY AND ROMANCE.

BY JOHN SACHS.

CHAPTER V.

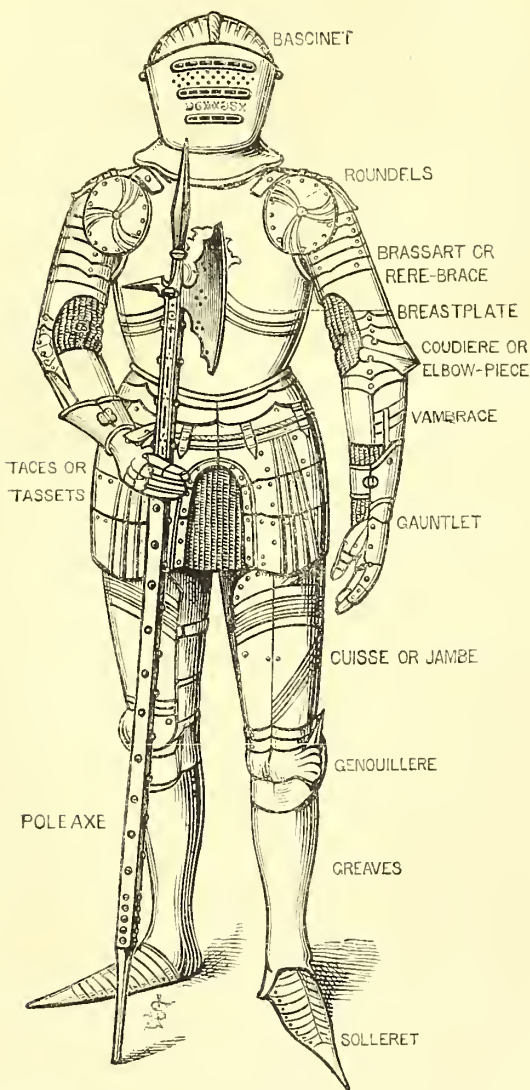


Fig. 28.

THERE is a natural tendency, perhaps, to ignore or dislike a subject placed before us in "words we cannot understand." Plate-armour came to us through the Normans, and the separate parts still retain their Norman-French names. By the courteous permission of the Secretary of State, we have been allowed free access to the collection of armour in the Tower of London for the purpose of making drawings for the Boy's Own PAPER. Among others we have engraved the splendid suit of early plate-armour at the head of this chapter. To this suit we have annexed the names of its different subdivisions.

To begin with the head, you may notice the word "bascinet." At the present time the word "helmet" is used generally for head-defence coverings, whether for a policeman, fireman, or life-guardsmen; but in former times the different head defences had various names. We have already shown that Harold and William the Norman wore an iron cap with a nasal protection. In the Bayeux tapestry both the chain-mail and plates drawn over the ears are shown. Now we read in a description of the Battle of

Hastings, by Robert Wace, whose grandfather was present in this famous field, that "the Norman archers aimed many arrows at the English, but they covered themselves with their shields, nor could they do them any harm. They took counsel to aim high; when the arrows were coming down again they fell upon their heads, and put out the eyes of several. The arrows flew more thickly than rain before the wind. Then it happened that an arrow which was falling from on high struck Harold above the right eye and destroyed its sight. And Harold by force drew the arrow out with his hands, broke it, and threw it away; and because his head was in great pain he rested on his shield." Whilst he suffered pain from the wound over the eye there came an armed man in the battle, who struck Harold on the "aventaylle" (this must have been the side protection for the face before mentioned), and brought him to the ground, and when he tried to raise himself, a knight beat him down again, gashing his thigh right through the bone.

This was, according to the etiquette of chivalry, a "felon's blow," and the knight was

afterwards disgraced by the Conqueror. This incident is also carefully delineated in the Bayeux tapestry.

The defects in the helmets of that time necessitated improvements that resulted in the bascinet. The fashion of tournaments and joustings, where a dangerous kind of field-sport only was intended, required an armour giving more protection to the life of the knight, and for it a heavy tilting-helmet was used. The bascinet was used only for war; but for tournaments and joustings the bascinet was reduced to an iron cap, the inside being lined with felt or sponge, and the tilting-helmet being placed over it. The corselet, with its tapering edged front, called the "tapul," protected the chest, taces covered the thighs, vambraces and rerebraces the arms, roundels the joints of the arms at the shoulders, genouillères the knees, jambi the legs, and sollerets the feet.

The suit we have illustrated represents a specimen of those used at the close of the fifteenth century—that is, about Henry V.'s reign. The back and breastplates are articulated. This close bascinet is, however, peculiar. It is constructed of two pieces only. Notice, too, that the sollerets have long piked toes, like the boots of the period, a fashion that shows the date of the workmanship.

In Fig. 30 we engrave a fine specimen of a tilting-helmet, that forms part of the trophy of Henry V., and hangs in the chantry of that monarch in Westminster Abbey. The border at the bottom is of brass, and has an ornamental diaper; a shield-shape pattern is in front, containing two pendent leaves.

Another tilting-helmet hangs over the tomb of Edward the Black Prince at Canterbury Cathedral; it has a crown-shaped pattern pierced in the side for hearing and ventilation.

In each of these royal trophies there are shields, the construction of which I now describe. Some years ago I had to draw the shield of Henry V. (Fig. 31), so that I can give you an accurate description. The form is of the heater shape, and it is constructed of smooth



Fig. 31.

oak. It measures twenty-four and a half inches long and nineteen inches broad. On the outside we have first, a covering of a fibrous material, over which are stretched four layers of stout linen; on the uppermost are indications of painted colours, which are probably the remains of the cognizance the shield was emblazoned with. The interior has been covered with white silk, now faded, a considerable portion of it remaining; the ground is diapered with a repre-

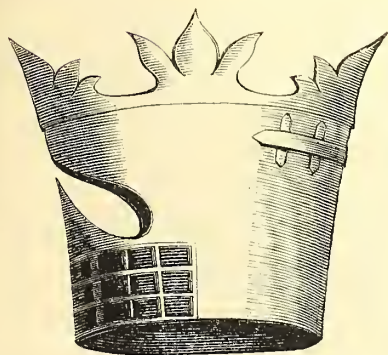


Fig. 29.

Royal Helm.—Edward I., from a seal, British Museum.

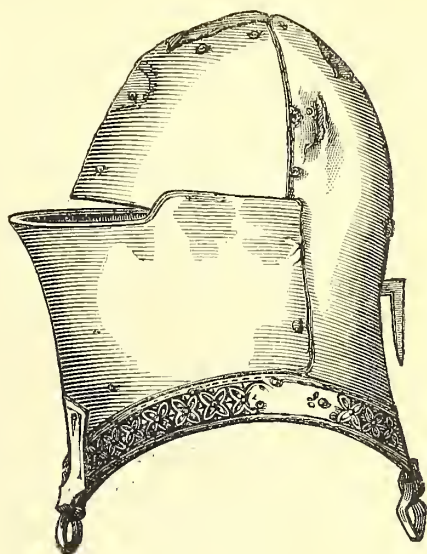


Fig. 30.

Tilting Helm.—Henry V., Westminster Abbey.

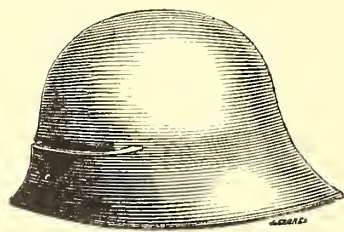


Fig. 32.

Salade, or Sallet.—Henry VI., from the Tower Collection.

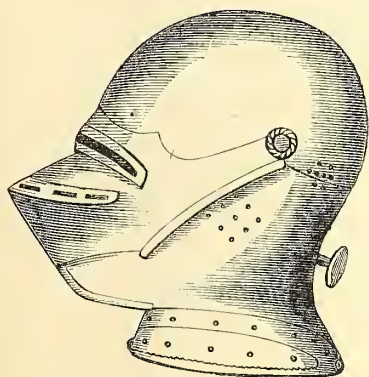


Fig. 37.

Armet.—In the possession of the Baron de Cosson.

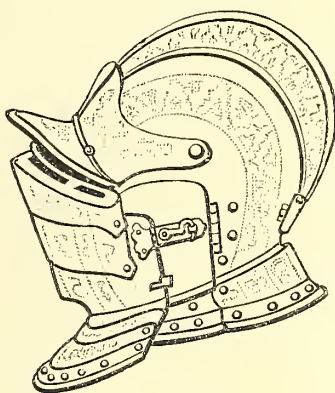


Fig. 34.

Convertible Armet.—British Museum.

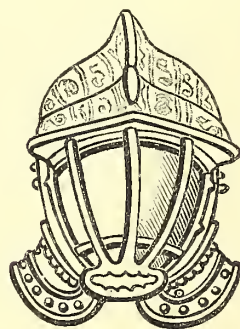


Fig. 36.

Little Armet.—British Museum.

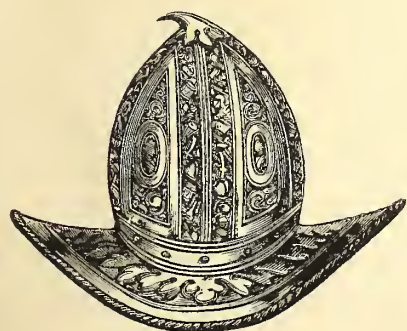


Fig. 42.

Cabasset, or Peaked Morion, with engraved work.—British Museum.



Fig. 43.

Combed Morion, with repoussé work.

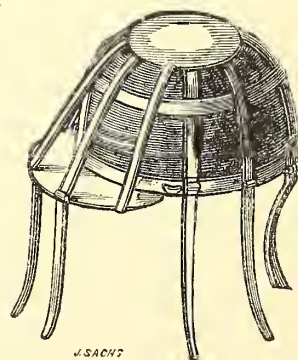


Fig. 44.

Spider Cap.—British Museum.

sentation of ivy leaves, on which is worked a semee of fleur-de-lis; over all is embroidered an escarbuncle in yellow on a crimson ground. This is one of the earliest specimens of needlework in this country, and it is a pity that it is not better preserved.

The shield of Edward the Black Prince is constructed of the stout leather of the time, called "cuir-bouilli."

But to return to the helmets. The root of the word *bascinet* in old French means a basin, in which form this helm was worn in the thirteenth century. In the next century a moveable visor came in, and this took a prominent and also an acute form of considerable glancing and resisting power. The visor was attached with hinges at the sides of the head-piece, and had pins, so that it could be removed at will. The acute form was used about A.D. 1350. It was worn with a camail (Fig. 25). The next improvement was a high collar of steel substituted for the camail, relieving the head from the weight of the bascinet, and allowing more freedom of movement. A still more acute visor was in fashion in 1425, and the comic artists of the period made much capital out of its eccentricity. It was called the pig-face bascinet, and examples of it are very scarce. About the middle of the fourteenth century the fashion of the bascinet got rounder at the top, longer at the back, and the result was the helmet called the *salade*.

(To be continued.)

TWO HOURS WITH A TROWEL.

BY THEODORE WOOD,
Author of "Our Insect Allies," etc.

YOUNG entomologists are very apt to consider that all outdoor work must necessarily cease as soon as autumn begins to give place to winter. So long as they can find butterflies and moths upon the wing they are industrious enough, but, when the net is no longer of use, they seem to think that insects have totally disappeared from the face of the earth.

Now this is a very mistaken idea. Of lepidoptera, it is true, very few are to be found in the perfect state during the winter months, but pupae are always obtainable, and eggs of good species may often be found by a little careful searching. Hibernating caterpillars, too, are plentiful enough, but these are best let alone, for they are not very likely to thrive when rudely aroused from their long slumber and exposed to the inclemencies of the wintry atmosphere. Then there are the beetles, a great number of which live through the winter in their perfect condition, and are to be found, by those who know how to look for them, in almost as great abundance as in spring or summer. Indeed it is a positive fact that there are absolutely more beetles to be found in December than in August, although, of course, they are not always so easy to get at. Yet, after all, a little perseverance is all that is required, and the collector who works systematically throughout the year will seldom have to complain of want of success during the winter months.

My readers have already accompanied me upon expeditions to ponds and haystacks in the depth of winter, in order to discover what living beings are harboured by each during their long term of repose. Let us now vary our destination, and proceed to a tree-sprinkled meadow, in order to have a couple of hours' work with a trowel.

Pill-boxes we shall want, of course, each being filled with cotton wool in order that any pupae which we may find may travel in safety. Then we shall require a lanrel-bottle (*Catulus* the lanrel, which cannot be procured at this time of year), a stout knife, the all-

important trowel, and a small square of oil-cloth upon which to kneel. This last is an indispensable item, for the ground is very moist and soppy, and we do not wish to court rheumatism by kneeling upon it for any length of time.

The wind is rather cold, so we don a warm overcoat, the pockets of which are sufficiently large to contain all our apparatus without bulging very perceptibly, besides holding a sandwich or two, in case we feel the need of refreshment. We select our thickest boots, too, knowing the nature of the ground over which we shall have to pass, and take the opportunity of wearing a very old suit of clothes, which we reserve especially for expeditions of this character. Thus equipped, we make the best of our way to our hunting-ground.

Judging by appearances, we ought to meet with tolerable success, for the meadow is studded with magnificent trees, all more or less furnished with wide-spreading roots, and is bordered on two sides, moreover, by a high wooden fence, the tufts of long grass at the foot of which are tolerably sure to have afforded sanctuary to many an insect in search of a winter residence. Appearances, however, may possibly be deceptive, so we at once begin to make experiments at the foot of a mighty oak whose roots form many a nook and cranny, which must surely fulfil the requirements of the most fastidious of insects.

Nor have its attractions been offered in vain, for, as we very shortly find, quite a host of creatures are lying buried just beneath the surface of the earth. First there is a Purple Ground-Beetle, with the beautiful violet band round its wing-cases, which is comfortably curled up in a sort of cell at the roots of the grass. When we first take him out he is quite torpid, and for some seconds shows no signs of life. At length, however, he begins to kick, at first feebly, and then more actively, until his stiffened limbs seem once more capable of bearing the weight of his body, and he hurries off, with all convenient speed, to bury himself again in the earth loosened by the trowel.

Then there is a pretty little beetle, by name *Calathus melanocephalus*, whose red

thorax renders him very conspicuous as he runs along in search of a fresh hiding-place. He is attended by quite a little colony of his relations, all terribly excited at being so unceremoniously roused from their five months' nap, and rushing hurriedly to and fro in hopes of finding another and a more secure retreat in which to complete their slumbers. Of course, too, there is a nasty wriggling centipede, our pet abomination, seeming in no wise disconcerted by the bad treatment which he has received, but making off in a leisurely sort of way to hide beneath a piece of loose bark.

Amongst the roots of the grass is a pupa, evidently that of one of the smaller *noctua*, which is carefully packed away in one of the wool-filled pill-boxes, in order that the future moth may not be crippled by an awkward knock received upon the journey home. Then comes forth an earwig, with slow and uncertain step, apparently quite dazed by his unexpected experiences, and rather doubtful as to the best course to pursue. After a moment or two of consideration, however, he follows the centipede, and is quickly out of sight beneath the bark.

Another tuft of grass is pulled up, and shaken as before, with the result of sending two or three specimens of that common little misanthrope, the cocktail beetle, called *Tachinus rufipes*, flying headlong on to the heap of loose earth turned up by the trowel. It is a singular fact about this beetle that it never appears to be what it really is. No matter how often it is met with, it is always deluding one into the idea that it is something perfectly different; and, what is more curious still, no two specimens seem at all to resemble one another until taken up and examined.

A small ground-beetle or two and half a dozen woodlice are scurrying along in different directions, and a large spider is lying huddled up in a corner, still quite torpid, and unconscious of all that is happening around it. There is another pupa, too, a nice-looking red-brown fellow, which we have great hopes may prove to be something good. We cannot help feeling doubtful, however; so many nice-looking red-brown pupae have turned out to be only *Manestra brassicae*!

(To be continued.)

CANOES, AND HOW TO BUILD THEM.

BY C. STANSFELD-HICKS,

Author of "Yacht and Canoe Building," etc.

CHAPTER I.—CANOES AND CANOEING.

NOW that the long dark evenings have set in will be a good time to commence a series of practical papers on canoes and canoe-building. Summer may be the best time to use such craft, but winter offers most opportunities for constructing them.

Canoes are of varied kinds and types, differing in some cases so much that the same name seems hardly applicable to them. For example, the Canadian canoe is undecked and capable of holding several persons, while the kayak of the Esquimaux is completely covered in, with the exception of a small opening, and is as a rule only intended for one occupant.

In England little was known of the capabilities of canoes until the adventurous cruises of the celebrated Rob Roy brought into public notice a type of boat that was at once inexpensive, handy, and safe in rough water, and from that time we may date the commencement of canoe cruising and racing, which has since attained proportions which could hardly have been imagined by the originator.

Racing canoes now are as carefully built as racing yachts, and their design is as care-

fully studied, while to properly handle a racing canoe requires not only a considerable amount of practical knowledge, but a natural aptitude which comparatively few possess. Those who succeed in it are also generally authors of various ingenious inventions for saving trouble in managing their craft and for carrying a maximum of sail with a minimum of trouble in managing it, and these clever innovations are seldom worked successfully by a novice.

To my mind it is evident that the modern canoe is simply the outcome of the original construction of the savage, improved and altered by the natural principle of selection and survival of the fittest. Those craft most suited to the purpose for which they are used have been handed down from generation to generation without change by their savage owners, until civilised man, taking the general idea, altered it to suit his particular requirements and the materials at his disposal, making a construction possibly more convenient for himself and the conditions under which he intended to use it, but not necessarily improving on the original structure as intended for its particular uses.

Thus the kayak of the Esquimaux is undoubtedly the prototype of the celebrated Rob Roy class of canoes, while the water-velocipede is only the double canoe of the South Sea on a small scale and differently propelled, and the birch-bark canoe of the North American Indian is the model from which all the cedar-rib and bass-wood canoes now so fashionable are built.

Let us then look at the different types of aboriginal canoes before we proceed to consider the construction of those more suited to our materials and requirements.

THE BIRCH-BARK CANOE OF THE NORTH AMERICAN INDIANS.

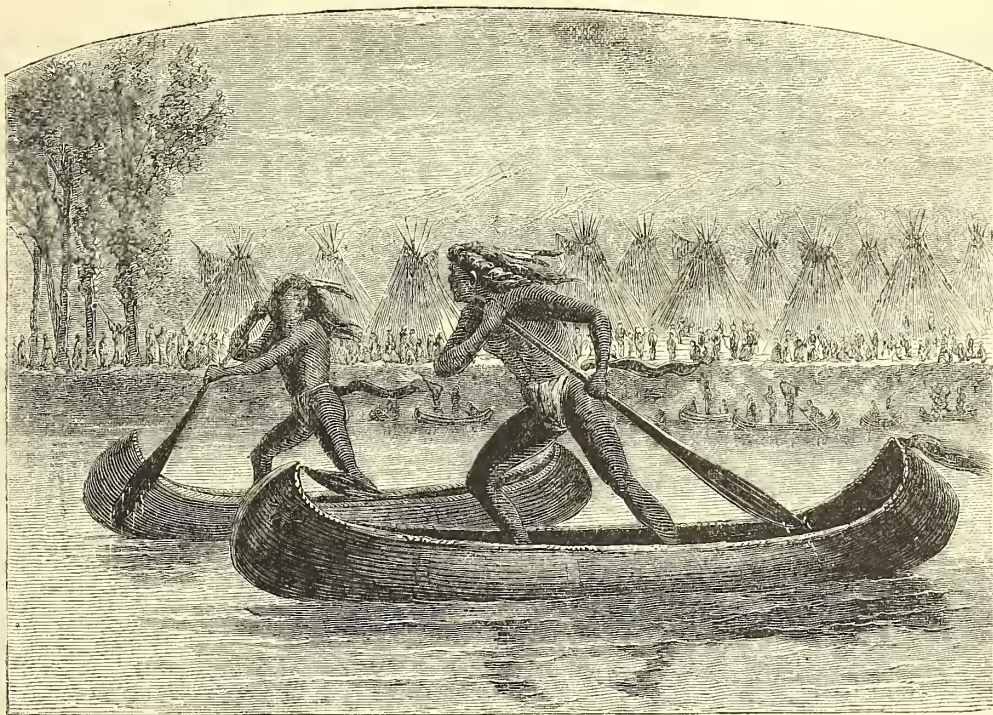
This canoe in its design and construction is most beautifully adapted to the purpose

becomes the orthodox method of construction.

Now the clever naval designer of to-day does not proceed altogether in this way. He knows certain principles and laws of opposing forces, and by regular formula proceeds to draft out his plans, but still when he departs from old types that have been handed down he does not always succeed; and, in fact, for all the knowledge and scientific attainments of the day there exist things difficult to understand in shipbuilding—things apparently simple, so simple that you might almost take an axiom of Euclid to illustrate them; as for instance: "Things which are equal to the same thing are equal to one another." Well, you say, any dunce knows that! Very good; then why should it be that

ward, to go through the roughest water without shipping a drop. This is the more necessary as these canoes are quite open, and if the water tumbles aboard there is nothing in their construction to keep it from swamping them. The Esquimaux kayak, on the contrary, completely covered in, can be driven through the rough water, which may tumble over it without any danger of filling.

Built of the bark of the trees abounding in the country, sewn by the roots of other trees and shrubs plentifully to be found, and caulked at the seams with the tamarisk gum,* another common product of the country, the birch-bark canoe is easily built and repaired, while by its form it can shoot the foaming and surging rapid with safety, and when one of the frequent cataracts occur that break



An Indian Canoe Race.

for which it is used, and I doubt much if one of our best naval architects could give a design more calculated to fulfil every detail of requirement than is shown in this of the rude savage.

The only way to reconcile this apparent anomaly is to concede that the two designs would be produced on an entirely different basis, the one being the outcome of generations of canoes. Thus, the first one possibly was unsuccessful in several points; one by one these were corrected. Designs bad here and there were altered as experience and frequent upsets and disasters indicated. Probably after several owners had been through various dangers of drowning involved by their bad design, they observed that one of the tribe seemed to escape upsets in a marvellous manner; they ask questions and look into the matter, and find his canoe differs in minor particulars that produce major results, and, copying him, they go on till other accidents show further desirability. For instance, a rock is in the way and the rapids hurling the canoes on; one turns, just in time, while the other is dashed to atoms, and her crew have a narrow escape, but lose all their impedimenta. What is the reason? They examine and question, and find and imitate, and succeed in making a more handy craft, and so this process goes on. A good rough-and-ready process too, but it takes time, till at last all requirements are fulfilled; a complete type is produced by the survival of the fittest, and that type handed down from father to son

while one ship turns out a regular flyer, another built on the same lines, a "sister ship" in fact, turns out the very reverse? If you can explain and remedy this, which is only one little difficulty, you will be more clever than most shipbuilders are. But for all this, the art of naval designing has made great strides of late years, and brilliant successes have been achieved by the naval architects of the day.

One of the most curious things in the Canadian canoe is the form of the bow, which is what is termed a U bow from the form of the vertical cross section, and this bow, though used for so long by the Indians, has only lately been introduced and largely used by ship and yacht designers.

This peculiar form of bow, giving a great amount of buoyancy, enables the canoe, although almost up-ended and buried for-

the course of the "rivers in the woods" the light canoe is easily portaged past the obstruction and once more launched on the river below the fall.

If you want to know any more about the Canadian canoe I must refer you to an article in No. 245, where you will find particulars of its construction, with explanatory diagrams.

* *Tamarisk gum.* This gum is almost impossible to procure here, and I had great difficulty in repairing some canoes of this description in my possession, but when at the Fisheries I learnt the method of doing so from the old Indian trapper in the American Department. He told me to take resin and oil and boil them together until they were like toffee. The method of ascertaining the proper degree of consistency is by trying a portion with the teeth. If it adheres but slightly it is ready for use. This preparation hardens when removed from the fire, and is kept in the canoe in case of an accident, when by heating it is ready for application.

(To be continued.)

My Old Chum.

By ROBERT RICHARDSON, F.A.

HE was my first and nearest friend,
And many a long, long year
Has rolled away since last we stood
In the dear old playground here
Tall and fair, with slim white hands,
And blue unclouded eyes,
Beautiful as a girl's in which
The soul of honour lies.

First in form and first in the field,
Gentle and bold was he;
I called him my Bayard, my beau-ideal
Of boyish chivalry.
And if ever in aught my own heart failed,
Or my effort fell faint and slack,
He cheered me again, with "Never mind, lad,
You were true to your colours, Jack."

[Loyal

Loyal friend, and generous foe,
Ready to weep or laugh;
Glad with the glad, and grave with the sad,
He never did things by half.
Scorning a lie, and scorning a coward,
On his word he ne'er went back;
"In woe or weal be true as steel,
And stand to your colours, Jack."

His grave lies lone in Indian soil,
By Hoogly's darkening wave;
Around him the sighing jungle-reeds
And sad wild aloes lave.
Leading a forlorn hope he fell,
The sword in his small white hand,
Flashing a path to fame—and death,
In the forefront of his band.

And still I see his beautiful face,
Hear the young voice silver-clear,
Of my dear old chum of that schoolboy time
Still echoing in my ear.
Like the soft refrain of a long-lost song
His words oftentimes come back,
As though 'twere only yesterday—
"Be true to your colours, Jack."



* In some copies of our issue of October 18, page 48, the name of Dr. Percival was inadvertently printed for that of Mr. Wilson.

PEACOCK.—Refer to the last number of the volumes. You will there find particulars as to covers and plates. All are in stock.

EMULPED MON.—See our articles on Fishing-tackle in the third volume, or get Mr. J. H. Keene's "Practical Fisherman," or Mr. Francis's "Book on Angling." The "Complete Angler" is good as literature, but antiquated in its practice. For float fishing try Martin's "Nottingham Style," price two shillings, published by Sampson Low and Co.

ROMEO.—1. By wetting it on the concave side, and holding the convex side to the fire, or giving it a bath of hot sand; but you will never succeed in straightening a board that has warped unless the curve is a simple one. 2. The only way to remove finger marks from cardboard is by rubbing them with crumbs of bread. If the surface of the board is at all rough, fine glasspaper would be of use. If you try any of the bleaching processes, the sheets of which the cardboard is composed will come apart. 3. It depends on the process, and the description is not clear in the important points. 4. Lay the map to be coloured in a slanting position, take a good soft brush full of colour, and beginning at the top, work backwards and forwards, zigzag fashion, leaving no dry line behind you, and never going over the same ground twice. You will find a ridge of colour accumulate along the lower boundary of the brush-mark, and this you take off on the return journey, when the upper line of the brush-mark you are making takes the place of the lower line of the previous one. See that the paper is free from grease-marks before you begin. Never touch paper that has been freshly painted. Wait till it is dry before you attempt to cobble.

F. W. C.—1. The Bill for the abolition of the slave trade was brought forward year after year for seventeen years before it passed. 2. The reason that the copper coinage improved so after 1797 was that in that year Boulton and Watt, of Birmingham, took it in hand. Watt was, as of course you know, James Watt, the inventor of the condensing steam-engine.

WASHINGTON and W. S.—What a curious waste of time! We have over and over again stated in these columns that the second century commenced on the first day of 101, and the nineteenth century on the first day of 1801. The statement as to Washington's death was a well-known mnemonic, put in that form that you should not forget the date—and you never will.

FAIRBURN.—Any cricket outfitter will supply you with a pair of Indian clubs. They cost from half-a-crown to a sovereign a pair, and are of all weights from four to thirty pounds.

T. WATSON.—One of our coloured plates was the model of a barque. The sails on the mizen are the spanker and gaff-topsail.

J. W. GORDON (Oporto).—Write to Messrs. Lillywhite, Frowd, and Co., Wisden and Co., or James Lillywhite, for a shilling cricket annual, and send the price to them of the articles you select from the price-lists bound up with the book. Include cost of carriage.

CECIL.—In all such recipes the proportions are by volume, unless specially stated to the contrary. We have given so many mixtures for graph composition. See our indexes.

ALMOND HARD BAKE.—Rather! Here they are. Split two ounces of almonds and put them into an oven or before the fire to thoroughly dry. When they are dry boil together for twenty minutes a pound of sugar and five ounces of butter, and then stir them in, and keep the mixture boiling until it crackles when dropped into cold water, and suaps between the teeth without sticking. Altogether the sugar should be on the boil for about half an hour.

L. C. P.—1. The figures are very much greater than you quote. The drainage area of the Mississippi is 1,244,000 square miles; the solid matter in solution and suspension carried down annually by the river is 6,724,000,000 cubic feet; the solid matter pushed along the bottom is 750,000,000 cubic feet; the drainage area is thus denuded at the rate of one foot in 6,000 years. The Ganges removes one foot from its drainage area in 2,358 years; the Hoang Ho one in 1,364 years; the Danube one in 6,846 years; the Rhone one in 1,528 years. 2. The average removal of the land from the surface of the globe is one foot in three thousand years, and it would thus take about two million years to denude Europe to sea level.

OUR PICKWICK.—A handy boy who is not afraid of work, and is sober, honest, and persevering, would do well in any of the Australian colonies, but it would be better for him to learn some special trade before he starts.

W. H. BISHOP.—1. When a pawn has worked its way across the board you can have any piece you like in exchange, whether the piece has been previously lost or not. Hence you can have the black bishops if you please, or even two queens. You mark the pawn with a pin stuck into it, or a collar wrapped round it.

ELASTIC.—The exercises given in our third volume are more numerous than those in any book on gymnastics yet published.

CHIESI.—The best thing to keep the shoulders from getting round is of course military drill, but we do not see how you can be far wrong if you use dumbbells and clubs, and select the extension exercises.

J. M. WILSON.—1. There is no one book in existence that gives the whole criminal law in force in her Majesty's dominions. You must get a text-book on the special branch of the subject on which you require information, and then read up the Acts and cases given in its notes. 2. The book you mention is quite obsolete, and would only mislead you. Like most old legal practice books, it is merely worth its waste-paper price.

AMBITIOUS.—A note to Messrs. Deighton, Bell, and Co., of Cambridge, would procure a list of books containing information for intending students. Get the University Calendar.

TOM THUMB.—1. The first volume costs six shillings, and is again on sale. 2. The index to the third volume costs one penny. 3. Keep your head up and your heels down.

PONTIFEX.—The church of St. Stephen's is built into the Houses of Parliament, hence the name. The crypt now used as a chapel is under St. Stephen's Hall.

B. DERBYSHIRE.—There are books on birds by Morris, Montague, Yarrell, Bree, Harting, etc. Perhaps the best plan would be to write to Wheldon, of Great Queen Street, for catalogue of his second-hand books on ornithology; or advertise your wants in the "Exchange and Mart."

GOLLOG.—It is proposed to make the Channel Tunnel entirely through the lower chalk.

R. I. U.—Quite true; it was a Bristol man who first discovered the mainland of America in modern times. At least, he was in command of a Bristol ship. His name was Sebastian Cabot, however, which sounds more like Genoese than Gloucestershire. Columbus first struck land at Guanahani in 1492. He did not reach the mainland till his third voyage in 1498. Cabot struck the mainland in 1497, Vespucci in 1499. If your argument means anything, it means that we should call America Bristolia Cabotia. But how about Ericia?

SHIPMAN.—1. A book called "Going to Sea, or Under the Red Ensign," is obtainable of all the marine booksellers. It is published by Norie and Wilson, of the Minories, costs one shilling, and gives full particulars, with pay and outfit tables for apprentices and ship boys in the merchant service. 2. It would be almost the best profession for a lad weak at the chest to adopt.

SINGLESTICK.—Get Waite's "Fencing and Singlestick" from any bookseller.

W. E. CLAY.—Sculs are generally made of pine, yellow or white preferred.

J. W.—To get the plate or plates published with any part you must buy the part, or wait till the following October, when you can buy the plates issued during the preceding twelve months for one shilling and eightpence the packet.

GRAVER.—You do not say what branch of engraving you wish to take up. You will find a good deal about engraving in Spon's "Workshop Receipts," and of course there are manuals on the subject. Write to Lockwood and Co., Stationers' Hall Court, or Spon, Charing Cross, for catalogues of their publications.

M. H. D.—Such diagrams are never given in detail because a brig carries the same spars and rigging as a full-rigged ship without her mainmast; and a brigantine has the foremast of a brig and the mainmast of a schooner.

BLIND BOY.—For information regarding the Braille apparatus for teaching the blind to read and write, apply to Dr. Armitage, Cambridge Crescent, Hyde Park, London.

J. M.—Read our article on "Navy Ranks" in the February part for 1884, and apply to the nearest post-office for pamphlet explaining how and where to join.

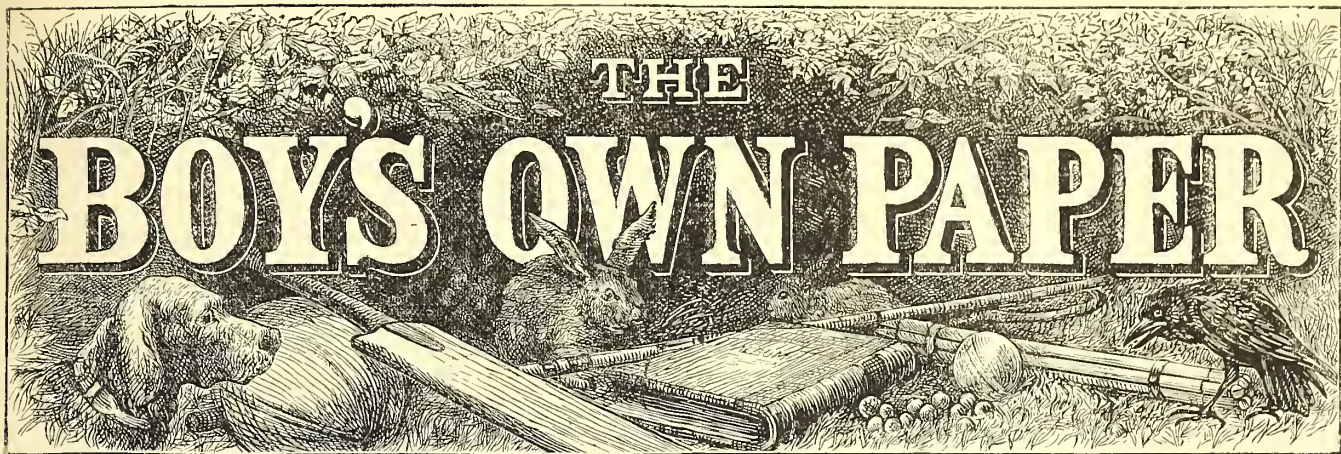
AN ADMIRER.—1. What next? "I wish to state that the coloured plate of the January number of the B. O. P. was the same as you published about a year ago; Crowns and Coronets was the plate!" You would be better for a little more sense and a little less admiration. Not only was "Crowns and Coronets" published by us in January for the first time, but it was the first sheet of the character ever issued. Nothing like it, either in subject or title, had ever been designed before. 2. When we are extremely hard up for new ideas we will avail ourselves of your suggestion. The Crests of the Peers, etc., would keep us going for some time. How many peers, etc., do you think there are?

SOUTH AFRICA.—Nearly every London publisher has a book on the Language of Flowers, selling at a shilling or eightpence. Apply to Messrs. Nelson, Ward and Lock, or Warner. One of the latest books on the subject is "Birthday Flowers," published by Chatto and Windus. It has highly coloured illustrations, and costs six shillings.

E. E. BAILES.—The quotation is from Juvenal. Doubtless you know more Latin than Juvenal? Did you ever hear of the critic who mistook a live owl for a stuffed one? Next time you wish to air your grammar you would find it wise to verify your quotation before you begin.

J. MACKENZIE.—1. The best thing to feed goldfishes on is ants' eggs, which you can get in threepenny or sixpenny packets at shops where they sell the fish. Whenever you buy an animal ask the dealer what he feeds it on, no matter whether it be fish, fowl, or flesh. 2. A piece of white pine, free from knots and shakes. You can get a suitable piece for a model yacht from Hudson and Carr, Endell Street and Millbank, or from any good timber merchant. If you want a piece specially chosen for the purpose you can get it from one of the builders, such as Rundle, of 59, Larkhall Lane.

BLACK RANGER.—In our third volume we had a long series of articles on "Fishing Tackle, and how to make it," and we cannot repeat. You must consult the back numbers.



No. 305.—Vol. VII.

SATURDAY, NOVEMBER 15, 1884.

Price One Penny.
[ALL RIGHTS RESERVED.]

SCHOOL AND THE WORLD.

CHAPTER X.

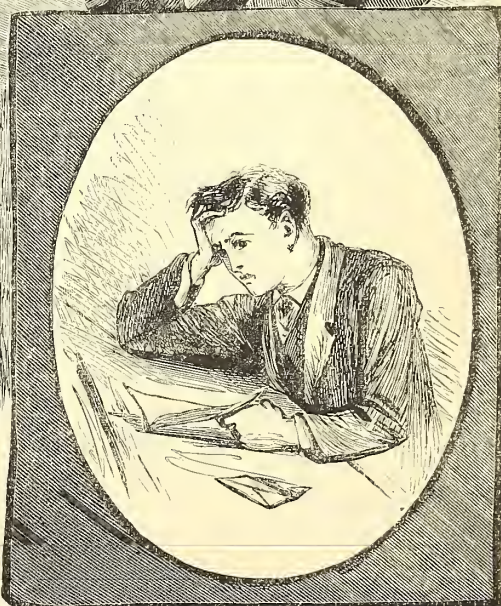
"LANG," said Soady one afternoon some few weeks later, "you're going to leave this half, ain't you—I mean aren't you?"

"Yes, and jolly glad I shall be."



"The only terms he would hear of were a sovereign each."

"So shall I, though I don't think I've had a bad time, as things go. I've never had the bother of being top of the form and having to slave like a nigger to keep there and lie awake half the night for fear I should lose my place next day. I guess, too, we shan't have such a good field for cricket in London as we have here."



"Are you going to London too?" asked Lang.

"I should think so. Why, I should die of inanition in a village. I'm going in for the Civil Service; I'm going to begin work next week."

"Have you got a nomination?"

"Don't want one now, only a certificate of character. The Doctor will give me that like a bird."

"It's about time you began to work if you are going in," said Lang, half amused at the sure way in which Soady spoke of the coming exam.

"Yes, but the exam. isn't till next year, and I'm going to have a coach in London. Coach is going to drive me instead of my driving the coach. When I do begin to work I shall work like steam; you just see."

"How about your music?" asked Lang.

"Yes; now that's a nuisance," replied Soady, reflectively. "It will be a pity if I have to give that up. I think I shall have to put in half an hour a day somehow. Music makes you so popular in London, you know. You sit down and you play a brilliant little piece—"

"Auld Lang Syne?"

"Anything you like—and there you are, don't you know! People think no end of you."

"You ought to make a big hit," said Lang.

"I don't know; I'm not cut out for parties much or that sort of thing. Where are you going to be when you leave?"

"I'm going in for law," was the rather moody reply.

"Solicitor?"

"Yes; pater won't send me to college."

"Never mind, it's better in London. But you'll have a pile of exams. to pass, won't you?"

"Yes, worse luck."

He spoke despondingly, and Soady perceived it.

"Oh, you'll get through all right if you work," he said, encouragingly. "I've known some awful fools who have passed high."

The inference was not very complimentary, but Lang did not take offence.

"You've got to be articled, haven't you?" continued Soady.

"Yes, five years I think it is, but if you pass the matriculation at the London University in the first division you save a year."

"No; really?"

"Yes, and I've had a letter from my pater this morning. Some one's told him of it, and so he writes me a tremendous epistle, piling up the agony. Says I must pass this exam. and save a valuable year of my time, that his expenses are increasing, and he can't keep me longer than is absolutely necessary, and all that sort of thing."

"You'll have to pitch into it, just like me."

"Yes, but, really, it's no use to pitch into it. Here's the best part of the half gone, and I've never even opened the books we have to translate. And I know no more of chemistry than Jim, and care less. There's no more hope of my passing the matric. this Christmas than of becoming the Prince of Wales."

"You may scrape through," said Soady, "if you do your best. You used to be fairly high up in the form till—till you went down."

He scarcely liked to say "till Fanshawe took you in hand." Soady was not fond of reproaching any one else, he was aware there were too many joints in his own armour. In spite of the encouragement he gave Lang he feared his chance of passing sufficiently high to do him any good was a small one. Still, without encouragement he was even less likely to succeed.

What made Lang's chance still less was the waning of autumn, when football once more came in season. Lang was great at football and took a strong interest in coaching the second fifteen. He spent an hour at least every day in trying to improve the backward, and so far was doing a good work in the school; but when a boy is going up for an exam., and is behindhand with his work, it is no good his trying to keep up his training and practice and yet catch up his arrears of work.

"Is any one else going up for matric. this year?" asked Soady.

"Only Melhuish, I believe."

"Melhuish! He doesn't seem to be working much. He looks very ill to me, but if I speak to him he jumps down my throat, so I've given him up as a bad job."

"Yes, I can't think what's the matter with him," said Lang. "I fancy he must have some home troubles, there's nothing here to worry him much; he doesn't get into rows overmuch, and he does his work fairly well."

The subject was not a very pleasant one, so they soon dropped it. Melhuish had recently been far from a pleasant companion, either to himself or to others. He was about as miserable as he could well be.

He had written a letter home, but had received no cash in answer to his appeal. He had not dared to give the true cause of his wanting money.

The necessity for it was becoming every day more pressing. Towards the end of the summer half he and Fanshawe had been wandering about together one afternoon, when a tempting orchard seemed to invite them to plunder. They had small scruples on the score of orchard-robbing, boys too seldom have; so, having satisfied themselves that no one was watching, they clambered over the hedge and began to fill their pockets.

Then a greater temptation appeared in their path. One side of the orchard was laid out as a kitchen and fruit garden, and a large bed of luscious strawberries met their gaze. Fanshawe led the way to it, and they soon had eaten a few score.

But there was a better watch kept than they had imagined. When they

came to decamp they found a couple of men ready for them at the only available point of egress; and one of the men held in a very formidable-looking dog.

Eseape was out of the question; so, thinking it would be a matter of a few shillings, they put a bold face on it and walked up to the men. But the owner of the orchard was not inclined to let them off easily, and the only terms he would hear of were a sovereign each. The alternative he offered was a visit to the Doctor and prosecution for theft.

The money was promised if time were allowed. Mr. Jenkins, the proprietor, was in no hurry, but warned them that he meant what he said.

Melhuish owed Fanshawe some money, about two pounds. Fanshawe told him he could pay Jenkins his share out of that. So Melhuish was saddled with the full amount. The date when he had promised to pay was past, and he had been obliged to write to Mr. Jenkins for an extension of the time. Even the farther limit was now near its expiration and Melhuish was no nearer obtaining the cash than before. So he had abundant reason for being wretched, seeing that Mr. Jenkins had the reputation of being a close-fisted man, who would be the last in the world to lose the chance of squeezing a shilling out of any one.

The days passed too swiftly for the miserable boy, who was firmly convinced that nothing less than expulsion awaited him if the affair became known. If he were expelled his father would—he didn't like to form an idea of what his father would do. Disown him, perhaps.

Above all he had a fear which, though seemingly unreasonable, was ever present, lest his theft of Simpson's money should be discovered.

After a week passed in dread he received a letter which brought matters to a crisis. Mr. Jenkins gave him notice that if the money were not forthcoming on the Wednesday he would come to the school the next day and see the Doctor about it. The letter reached him on the Monday. Only two days to raise the money; it was impossible!

He could not borrow it, he had already borrowed all he could; if he did he would have to pay it back, and there was no chance of that. Besides, there were very few boys who would have much to lend, for football subscriptions were heavy this year, and the half was more than half way through. Whichever way he looked the prospect was equally hopeless.

But at the worst he had one means of escape. He could run away.

(To be continued.)

IVAN DOBROFF: A RUSSIAN STORY.

By PROF. J. F. HODGETTS,

Author of "Harold, the Boy-Earl," etc.

CHAPTER I.—MYSTERY AND PERIL.

TINGLE-tingle, jingle-jangle, go the bells attached to the harness of a Russian carriage driving rapidly over the uneven, dusty, broad, beaten track doing duty for a road.

There are three horses; the centre horse wears the "duga," or bow to keep

his head up, and those at the side are made to keep their heads down and bending outwards, so that the ground-plan of the position of the horses would resemble a lady's fan spread open.

In the carriage are four passengers; of these two occupy the back seat, so as

to look in the direction of their progress. One is a tall, portly man, in a black cloak with a large cape. He wears the cap of an officer in the civil service; it is blue, with a green velvet band, surmounted by the badge of the service called the cockade. The other sitting next him wears a light-grey overcoat, with the shoulder-straps of a general, worn instead of the costly, cumbersome epaulettes of full dress. His cap is white, with a red band, and the cockade is fixed on the band, and not over it, showing him to be a military officer.

The two younger boys—for they are both mere lads—who are sitting with their backs to the horses, are respectively a student of the First Gymnasium of Moscow, indicated by the silver badge in front of his uniform cap, and a young Englishman in the ordinary tweed dress of an English tourist, surmounted by a soft felt hat of the same colour. The perpetual jangle of the bells on the harness, and the incessant row of the bigger bell hanging from the "duga" of the centre horse, seem greatly to fatigue Edward Tenterton, who looks wearily from the carriage in hopes of finding something to vary the monotony of the scene or to relieve the still more unbearable monotony of the bells.

"You don't seem to admire the magnificence of our Russian scenery, Mr. Tenterton," said the young Gymnasium student, a boy of some fifteen summers.

He spoke in very fair French.

"No; I don't see much to admire in these undulating plains—cornfield after cornfield, each as big as an English county, succeeded by dark pine-forests each as large as a German dukedom. It's a kind of thing that gets wearisome at last."

"You don't like the bells?"

"I find them monotonous after two days' incessant jingle-jangle, but it is highly interesting to travel this way, all the same. We in England are so apt to identify Russia with snow and ice that this awful heat is astounding. I never saw dust, to speak of, until now!"

"Terribly national you English are!" said the general. "Whatever is not English you don't like; and inconsistent people you are too, for you travel out of your native country more than any people in the world! If you like it so much, why don't you stop in it?"

Tenterton laughed merrily as he replied, "You see, by travelling we become still more attached to our tight little island; and when we find anything in art, manners, or science different from that which we enjoy at home, if superior we adopt it; if not, we are still more thankful for being English."

"National conceit with a vengeance!" said the civilian, in the Russian language, of which Tenterton knew as yet very little. "But conceit is the prevailing vice of these islanders."

"Yet they have some excuse for it," said the general. "Is that Ozoonovo in the distance?"

"No; you seem to have forgotten the way. The village we are coming to is Orekhovo; Ozoonovo lies more to the south."

"Ah! I remember, they form a sort of equilateral triangle, those three villages—Orekhovo, Ozoonovo, and Berozovo."

"Exactly! and I mean to halt just to ask a few questions of some of my peasants in Orekhovo."

The general eyed his companion with a queer glance, which seemed to make that worthy rather uneasy. He changed the subject immediately, and said, "I am sorry you will make so short a stay with us, general; perhaps you may be able to get longer leave."

"Quite impossible. So this is Orekhovo? I remember now."

They had approached the village, which consisted of a few log-cabins formed of the trunks of pine-trees placed horizontally one over the other until the required height was reached, the fissures being stopped up with tow rammed in between, much as the planks on board ship are "caulked." The roofs were all of thatch, the windows small and as few as possible. The road was very wide between the two rows of wooden huts that made up the "village," which was perfectly innocent of pavement, being as uneven as the waves of the sea. In driving through much caution was required on the part of the driver to avoid upsetting his party by some unlucky lurch caused by deep holes and ruts all along the road.

It was a Prasdnik, or great holiday, and the peasants were dressed in their best array. The girls and women wore skirts and handkerchiefs of all the colours of the rainbow, with white aprons bordered and worked with embroidery in red and blue and yellow threads; with head-dresses formed of gracefully-twisted handkerchiefs; or, in the case of the elder girls and married women, the kokoschnik, a sort of tiara of red cloth, curiously embroidered with gold thread and glass beads.

The girls had formed a ring, holding each other by the hands, and, pacing slowly round, were singing a Russian song. The air was singularly dreary, and the words were drawled out in such a way as to produce a most melancholy effect on the listener.

The men were for the most part engaged in drinking "vodka," a spirit distilled from corn, and similar to whisky, to which the Russians are greatly addicted. Some of the younger men were playing on accordions, while others were singing songs, quite irrespective of the instrumental exertions of their friends. They were all very lightly clad, chiefly in very wide cotton frousers, like those worn by Turks, confined round the lower leg either by very high boots or by bands of linen wound round from the ankle to the knee, like the cross-gartering of the Scandinavians in the old viking times. The upper part of the body was clad in a red shirt, worn over the trousers like a blouse, and secured round the waist by a cord. The head was defended either by an ordinary cap, a high felt hat like an extinguisher, only not quite so pointed, or a small, low-crowned black hat, with a very small and very curly brim.

The song ceased as the carriage approached, and many half-savage dogs rushed out at the travellers, barking, yelping, howling, and snarling in discordant tumult. The driver, or yamschick, was fain to lay about him lustily with his whip—an instrument which, to do him justice, he rarely used to the horses.

Very soon the landau was surrounded by bowing peasants. Oh, how they bow! Hat or cap in hand, bending lowly, servilely, and yet gracefully, they thronged round, greeting the civilian as "Nicolai

Alexandrovitch"—not as Mr. Abrazoff, as we should call him.

For the Russians pride themselves on knowing the *name*—i.e., baptismal name—and the *patronymic*, which is the baptismal name of the father of the person addressed, with the addition, in the case of the nobility and gentry, of the suffix "vitch," "ovitch," or "evitch," according to certain laws governing the custom. The addition to the peasant's patronymic is "off" or "eff." But as many families had this distinction before the use of surnames became general in Russia, it is very usual to find the termination "off" or "eff" marking the surname or family name even of a Russian gentleman. Thus a boy whose father's baptismal name is Ivan (John), being himself christened Ivan, would be called Ivan Ivanovitch—John, the son of John. And if the surname were Ivanoff, he would be, if a gentleman or a noble, Ivan Ivanovitch Ivanoff; if a peasant, Ivan Ivanoff Ivanoff—though peasants rarely use the surname at all.

But we are keeping the peasants bowing and the dogs barking and the driver lashing them all this time.

"Hope you are well, Nicolai Alexandrovitch. God grant you are all well at the house!" cried a cheerful voice above the uproar of dogs and peasants. It was the voice of an elderly man, with white hair, scrupulously parted—as is the case with all Russian peasants and inferior tradespeople—down the middle. "What a long time it is since you were here! And how is Ekaterina Petrovna?"

"She is well, and will soon come to see you."

"God grant it! How is Marie Nicolaevna?" (The feminine of the patronymic ends in "aevna," "evna," or "ovna," according to circumstances.) "Hope she is well and happy?"

"Thank God!"

This is the Russian reply to a question about health. They do not *thank you* for asking, but they thank God for being well.

"And Paul Nicolaevitch?"

"There he sits; he can answer for himself."

"What! that tall gentleman? He is quite a man! Is it possible? How he has grown! Hope you are well, *barin* [sir, gentleman, master, as the case may be]; hope you are very well."

"Thank God!"

"Now," said Abrazoff, "I want you to tell me something. Where is Ivan Ivanoff?"

"Fetch him directly, Nikieter! Don't you hear?"

Away ran the young man thus addressed, and in a few moments returned, leading with him an old man dressed in the usual light costume worn by the peasants during the fearful heat of the Russian summer, of which people who have not been in India can form no idea. The new-comer bowed low and submissively before the "great ones" in the carriage, and a similar string of questions as to the health of the members of Abrazoff's family having been put and answered in due form, the old man said, "You are very good to remember me; I thought you had forgotten all about Orekhovo."

"Who? I? Never! By-the-by, I want to ask you some questions. How is little Ivan getting on?"

"How can I know? Have not seen him for years."

"What!" exclaimed Abrazoff, angrily; "not for years? What an old idiot! Drunk, hey!"

"Can't help a little vodka, Nicolai Alexandrovitch. You like it too sometimes!"

"Don't bandy words with me!" roared Abrazoff. "Take me at once to Olga Ivanovna!"

"Take you to Olga Ivanovna!"

"Yes, you old *durak*! [fool] take me to her instantly—this moment!"

"Pray excuse me, Nicolai Alexandrovitch. But you see—beg your pardon, but I can't!"

"Can't!" shrieked the barin, almost beside himself with rage. "How dare you speak of *can't* to me? Lead me to her this moment!"

"Well, the burial-ground is not far off; if you insist, I must take you. There is a neat cross over her grave, though it isn't painted."

"What! dead? Why did you not say so at once?"

"Batuschka!" ("Little Father," a very common exclamation amongst the Russians). "How angry he is! It is not my fault."

"What became of little Ivan?"

"The priest took him."

"Which?"

"Simeon Ilitch."

"Lead me to him—at once—at once! No nonsense!"

"Batuschka! He is at Ozoonovo!"

"Is it possible? Can such idiots exist?" cried Abrazoff, greatly incensed. "You shall pay for this, you shall, if I have a voice in the country! I can't flog you, as my father would have done, but I can do worse! Look out! Drive on, there! Why waste time on such a herd? Drive on!"

Very soon the bells were jingling as before; the good-humoured face of the driver showed no trace of annoyance at the uncomplimentary way in which his master had addressed the villagers, though he was a native of the place, and claimed acquaintance with all the inhabitants and relationship with many.

But General Zakovskie had marked all this very narrowly. He was intimately acquainted with Abrazoff—indeed, his wife had been some kind of cousin of this irascible landed proprietor. He thought it very strange that a gentleman—a man of the world, and mixing in the best circles of Russian society—should forget himself thus—before a stranger, too, for the Russian is always anxious to make a good impression, especially on foreigners.

Edward Tenterton was puzzled. He had not been long in Russia—and even if he had been it would not have helped him to the solution of the mystery, for such behaviour is not common there. The scene impressed itself strangely on his mind. So much he had understood of the conversation as to gather that a boy had disappeared whom Abrazoff greatly desired to see or to hear about; also that the old peasant-woman in whose charge he had been left was dead, and that these facts had greatly excited the gentleman with whom he was travelling.

"Nice people these!" said Edward to himself. "There is some mystery or other here. However, it's no business of mine." Then, turning to Paul, he said, "Another forest! What quantities of timber! Why, this one looks bigger than

any one we have hitherto passed through!"

"I should think it did indeed! It's mine!"

"Yours? Well, I suppose all the estate will be yours in time?"

"Oh, yes; when papa dies, which I hope will not be for many a long year to come. He is not bad on the whole, you know; I never saw him angry before—at least, not like *that*. But this wood was given to me on my last name's-day."

"What is a name's-day?"

"Why, you see, we true believers are baptized after the good saints who are in heaven. Every day in the calendar belongs to a saint, and, according to the guardian angel or saint, after whom a Russian is christened, he or she celebrates his or her annual holiday."

"I see; like our birthday."

"Just so. Well, on the name's-day we receive presents, and on that one when I was twelve years old my father gave me the wood."

(To be continued.)

THE STAR OF THE SOUTH:

A TALE OF THE DIAMOND FIELDS.

BY JULES VERNE,

Author of "The Boy Captain," "Godfrey Morgan," "The Cryptogram," etc.

CHAPTER V. (continued).—THE MINERS AT WORK.

IN a bowl on a bench near the window were the rough diamonds entrusted to Jacobus Vandergaart. Their value was something considerable. If he wished to cleave a specimen whose crystallisation did not seem quite perfect he would begin by ascertaining by means of his

incision in the selected face, and then he would introduce a thin steel blade into this incision, and give it a sharp blow. In this way he would cleave the diamond's faces one after the other.

If Jacobus Vandergaart wished to "cut" a diamond, or, to speak more accurately,



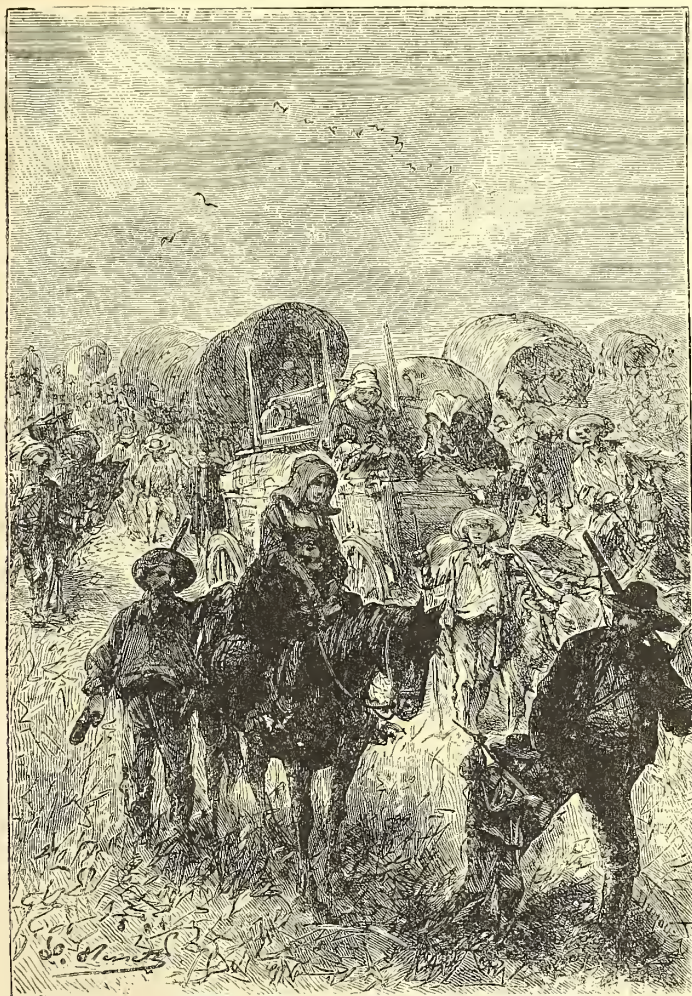
Jacobus Vandergaart.

magnifying-glass the direction of the cleavage planes. Then with a splinter of another diamond he would make an

to shape it into some desired form, he would begin by drawing in chalk on the gangue the facets he had selected. Then

he would place each of the faces in succession in contact with a second diamond, and then he would submit them both to

would press the faces of his stone until they had acquired a perfect polish. The crank was worked sometimes by a little



"With waggons and cattle and all their belongings."

prolonged friction. The two stones would mutually grind away each other and gradually the facets would be formed.

In this way Vandergaart would give the gem one of the customary forms, all of which can be classified under three headings, "double-cut brilliants," "single-cut brilliants," and "rose diamonds."

A double brilliant has sixty-four facets, a "table," and a "pavilion."

A simple brilliant is just half a double brilliant.

A rose is flat below and has a faceted dome above.

Now and then Vandergaart had to cut a "briolette," that is, a diamond with neither top nor bottom, and shaped like a pear. In India briolettes have a hole bored through the narrow ends, and by it are threaded in strings.

"Pendants," which he very rarely had to cut, are half briolettes with table and pavilion and faceted on the inner side.

Once the diamond is cut, it has to be polished. This is done by means of a disk of steel or lead, about nine inches in diameter, spinning horizontally on a table at the rate of from two to three thousand revolutions per minute, and worked by a crank and fly-wheel. This disk is smeared with oil, and dusted over with diamond dust derived from previous cuttings, and against it Vandergaart

Hottentot boy, who was engaged by the day, sometimes by a friend like Cyprien, who was always very happy to oblige.

As the diamond-cutter worked he talked, and sometimes he would push his spectacles on to his forehead and stop short in his work to tell some story of the past. He had been forty years in South Africa, and knew nearly all its history, and what gave the charm to his conversation was that he spoke from personal experience, and honestly believed in the traditions and prejudices of his countrymen.

Often would he tell how in early days the colony had been captured by the British, and how the Boers, to avoid the restraints of laws to which they were unaccustomed, had moved farther and farther up the country. And he would enlarge on the perils and incidents of each exodus as with waggons and cattle and all their belongings the Dutch settlers penetrated into Kaffirland in search of a new home. And many were the stories he would tell of the wars with the natives occasioned by these irruptions into the countries of the savage kings.

"At last," concluded he on one occasion, "I built this house where we are sitting, and started a farm. With me were my wife and two children. My kraal was on the site of the present mine. Ten years later John Watkins arrived in

these parts and built his first house. We did not then know that there were diamonds in this country, and so little occasion had I for thirty years to think of my old trade that I had almost forgotten the existence of such gems.

"Suddenly, in 1867, diamonds were discovered, the first recognised, as you know, while it was being thrown about by a child to whom it had been given as a pretty pebble for a plaything. In 1870 I lost my wife and children, and almost alone in the country I remained quite indifferent to the fever raging around me. I worked away on my farm just as if the deposit at Du Toit's Pan had been a thousand miles off instead of within musket shot.

"One night I found the wall of my kraal had been knocked down and the boundary removed three hundred yards farther back. John Watkins, helped by a hundred Kaffirs, had built a wall joining on to his own so as to enclose a large patch of sandy, gravelly land, up to that moment always recognised as belonging to me.

"I complained to him. He only laughed. I threatened to go to law. He told me I might as soon as I liked.

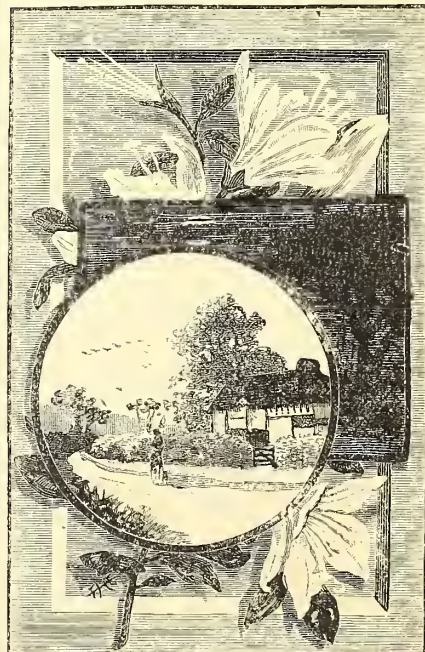
"Three days later the mystery was solved. The patch of ground was a diamond mine. John Watkins had discovered it, and, hurrying off to Kimberley, had certified it as his own.

"I went to law, and you know what that means. One by one I lost my cattle, my horses, my sheep. I sold my furniture, I parted with everything. I lost my law suit, and I was ruined.

"The decision of the court was that I had made out no claim to the land in dispute, but that to avoid further trouble they would confirm me in possession of what I then held and certify the boundary. That boundary they took as the twenty-fifth degree of east longitude. The land to the west of it was adjudged to John Watkins, that to the east to Jacobus Vandergaart.

"The mine was to the west of the line, and so, although it bears my name, it became the property of John Watkins."

(To be continued.)



JERRY'S VISIT, AND WHAT CAME OF IT.

BY THE REV. H. C. ADAMS, M.A.,

Author of "Schoolboy Honour," "For James or George?" etc.

CHAPTER III.

IN the morning, however, Sir Jerome was in no condition to sit at the window and see Jerry ride his pony. He had a terrible night, with fits of sharp pain and not a wink of sleep. Dr. Staines was much alarmed at the state in which he found his patient, and gave orders that the boy was not to be readmitted to his grandfather's room until he gave express permission. Mr. Henry Mannering wanted him to be sent away from Netherby altogether, but Dr. Staines discountenanced the step. "It would be sure," he said, "to reach Sir Jerome's ears, and might cause agitation enough to be fatal." Jerry, however, ought to be kept out of the house as much as possible. He had better be sent down to the vicarage, where Mr. Hartley's successor, the Rev. J. Curwen, a cousin of Sir Jerome's, now resided. Mr. Curwen had two sons about Jerry's age, as well as two pupils residing in his house. These would be very suitable companions for Jerry.

Mr. Mannering was obliged to be satisfied with this, and took the boy down to the parsonage, as the doctor advised; but he took care to let the Curwens know that Jerry was a regular young prig, who couldn't take part in any games, and would be frightened out of his wits if he met a herd of cows. The boys, in consequence, received him very coldly, cutting jokes at his expense, which Jerry, good-natured as he was, was not disposed to tolerate. They soon parted company. The Curwens were on the point of setting out for a walk, to try whether the ice on a neighbouring pond would be strong enough to bear. They did not propose to Jerry to accompany them, and he did not suggest it himself. Quietly wishing them good morning, he turned off another way by himself, and arrived at the Park just in time for dinner. The next two days were wet, the frost having quite broken up, and Jerry remained quietly indoors amusing himself in the billiard-room and the library, apparently quite contented. He made frequent inquiries after his grandfather, but received very discouraging answers. The old man was seriously worse, and Dr. Staines had but little hope of even a temporary recovery. He asked regularly every day after Jerry, so the boy was told, and was looking anxiously forward to the time when he might be allowed to see him again. He was told, too, that he would probably soon see his friend Mr. Fenwick again, his grandfather having sent a message requiring his presence in the course of the following week.

The fifth day of Jerry's visit was once more mild and fine, and soon after breakfast he received a message informing him that the young gentlemen from the vicarage were at the stables, and begged

he would come out to join them. He consented, and, putting on his hat, followed the servant to the stable-yard. This was situated at a considerable distance from the house, and some dense masses of shrubs intervened between the two, so that there was no fear of Sir Jerome's quiet being disturbed by any noise that might be made there. Jerry found all the four boys from the parsonage in the yard, which Henry Mannering had left only a few minutes before. He did not much fancy any of them, unless it was Lippencott, the senior of the two pupils, who seemed a quiet and good-humoured fellow enough. But of the two Curwens, one struck him as being a lout and the other a sawney, while the remaining pupil, Walter Garden, seemed disposed to play the bully at his expense.

Jerry soon learned that he was not wrong in this view. He found Garden, who plumed himself on his good riding, bent on proposing a leaping match. There was a nice stretch of turf immediately behind the stable-yard, where a leaping-bar had been set up. Garden was now suggesting that the five boys and young Gilbert Ashleigh, who had ridden over to inquire after the baronet's health, should each contribute five shillings, the whole to be given to the one who made the highest leap. The Curwens and young Ashleigh had assented willingly enough, and Lippencott made no objection to the proposed trial, but suggested that Jerry Mannering should not be included in it.

"You heard what Mr. Mannering was telling us," he said—"that his nephew was a regular molly-coddle, and couldn't ride a donkey? He might be thrown and hurt if we put him on one of Sir Jerome's ponies."

"Oh, gammon!" said Garden. "He's a precious stuck-up young muff, and wants taking down. Did you see the way he turned off last Wednesday when we went away to the pond? We owe him one for that, and we'll pay him! Here, Jerry," he continued, addressing the boy named, who had just come into the yard, "we are going to have a leaping match—five shillings a head. I suppose you will put in, won't you?"

"No, I thank you," returned Jerry, who did not at all relish Garden's tone and manner; "I haven't five shillings to spare, and shouldn't thus use it if I had."

"And, besides, are afraid of being thrown! You'd better add that, hadn't you?" returned Garden, with a sneer.

"No," answered Jerry, quietly; "I had better not, because it wouldn't be true."

"Come, don't let there be any quarrelling," interposed Lippencott; "we can have the match without him."

The ponies were brought out—two of Sir Jerome's, a chestnut and a grey, which the young Curwens were often

allowed to ride, and the one belonging to young Ashleigh. They were nearly of a size, and could leap about equally well. It was agreed that Ashleigh should ride his own pony, and that lots should be drawn for the other two. This was done, and it was found that Jem Curwen and Lippencott were to have the grey, and Tom Curwen and Garden the chestnut. They mounted and went out into the paddock, where the bar was fixed, Lawes, one of the grooms, and Hodge, the stable-boy, accompanying them to see the fun.

It proved a very close contest. The bar was three times raised before any of the party failed to clear it. Then Ashleigh, Jem Curwen, and Lippencott were all obliged to succumb, and at the fifth trial Tom Curwen followed suit. Garden was greatly pleased at his victory, and could not forbear venting some of his self-conceit upon Jerry, who had stood by critically observing the movements of the competitors.

"It's a good job for you that you didn't put your five shillings in, isn't it, Jerry? You'd have been all that worse, and had an unpleasant spill into the bargain!"

"Should I?" returned Jerry, coolly. "I am not so sure of that!"

"You're not, hey?" cried Garden. "Do you think you could have won?"

"I think the chestnut is the better leaper of the two, and that is why you won," returned Jerry. "And, as I am a lighter weight than you, I think he would carry me an inch or two higher than he would you."

"Ah! you *think* that, I dare say; but you have been wise enough to decline the trial."

"I beg your pardon," said Jerry; "I only declined to bet five shillings."

"What! do you mean you'd ride Charlie at that leap?"

"No; but if you'll put the bar one hole higher I will."

"You will! Up with the bar, Hodge, and we'll see him do it!"

"No, no, sir," interposed the groom; "Mr. Jerome mustn't try it. Charlie's very difficult to ride, as you know, except to those well used to him. Unless Mr. Jerome's a real good rider, 'twon't be safe. Sir Jerome—any ways, Miss Rosalie—would be very angry—"

"Gammon, Lawes! He's only pretending. He'll never get on Charlie's back. There," he added, dismounting, and offering the bridle to Jerry, "there's the pony, and Hodge has put the bar up. Now let us see you make good your boasting. Mr. Henry Mannering said he might ride Charlie if he chose. Indeed he said we had better ask him to do it. That's enough for you, Lawes."

"Mr. Jerome, sir, pray don't mount the pony!" said Lawes, as Jerry proceeded to shorten the stirrups. "I know harm'll come of it! Well, any way, I won't have

nothing to do with it; I'll go in and tell Miss Rosalie. Please wait till I come back, sir."

He ran off as he spoke, but Jerry, whose blood was up, paid no heed to his remonstrances. Springing lightly into the saddle, he proceeded to canter Charlie round the field, so that the pony might get used to his hand and seat before he attempted the leap. Charlie, feeling a new rider on his back, laid down his ears, kicked and plunged, and finally went off at a gallop, two or three times trying to dislodge his rider. But Jerry sat fast and allowed him to exhaust his irritation; and in ten minutes or so succeeded in restoring him to good-humour. Then, after pausing for a minute or two to allow him to recover his wind, he put him at the leap, which the pony accomplished successfully, clearing the bar by two or three inches, amid the approving shouts of all present, excepting Garden, who ground his teeth with vexation.

The sound had not died away when Lawes reappeared on the scene accompanied by Miss Mannering, who was just in time to witness Jerry's feat. She was greatly relieved by the assurance of his safety, but, nevertheless, felt seriously displeased.

"You have acted quite right, Lawes, in coming to me about this matter," she said. "Another time you will not allow the ponies to be ridden without Sir Jerome's express permission. They had better be taken in now. Jerry, wish your companions good morning. We will return to the house together." She bowed coldly round, and taking Jerry by the hand walked off with him.

A day or two passed without any further adventure; indeed the baronet's increasing illness necessitated the observance of the utmost quiet. Dr. Staines shook his head more despondingly at every visit. At last he reported that he had little hope that his patient would survive the day; and his forebodings were justified about three o'clock that evening by the decease of Sir Jerome. Two hours afterwards Miss Mannering and her brother met in the drawing-room. The former was overwhelmed with grief; but Henry had required her presence in order to assist in the necessary arrangements.

"Morton's people of course will be employed for the funeral," he said, "and I have written to Mr. Fenwick, who I believe has the will. You had better inform Clara, and at the same time request her to remove this boy, who will only be in the way here. My wife, I expect, will arrive to-morrow evening, and I wish him to leave this house as soon afterwards as possible. Indeed—"

"I will write to Clara, of course," interposed Rosalie. "But I cannot ask her to remove Jerome. On the contrary, Clara herself must be requested to come here."

"Clara! come here! Do you think I will allow that?"

"I don't think you will have any power to prevent it, Henry. I meant to have broken this to you more gently, but I must stop the proceedings you seem inclined to take. Three days ago my father burned his will—"

"Burned his will! Why Fenwick has it in London."

"No, my father sent for it ten days or so ago. He wrote, quite of his own head, to Mr. Fenwick for it. I think he in-

tended to add a codicil, as he sent a message to Mr. Fenwick soon after Jerry's arrival, desiring him to come to Netherby in a few days. But I don't think he would have burned it if it had not been for what occurred last Monday."

"Last Monday! What do you mean?"

"I mean what took place in the stable-yard. I was sitting with my father when I was told that Lawes wanted to see me immediately. I went out and returned as quickly as I could. But my father insisted on knowing what Lawes had wanted, and finding me unwilling to talk about it, sent for Lawes himself, and made him relate all that had taken place. Among other things Lawes told him that you had given your sanction to Jerry's being put upon Charlie—indeed had advised it. He was greatly excited, and sending for Hampson, in his presence and mine, and that of Lawes, threw his will into the fire. We begged him to wait and inquire further, but he would not. He then desired us to give him our promise that we would say nothing of what he had done until after his death."

Henry Mannering was on the point of bursting out into violent anger, when his attention was diverted by the sound of wheels, and a carriage drove up to the front door. A minute or two afterwards the door was thrown open and Mr. Fenwick entered the room, accompanied by Hampson and two other persons, an elderly gentleman and a lad of eleven or twelve, the latter looking very pale and sickly.

"Miss Mannering," said Mr. Fenwick, "we have come from London to explain the extraordinary mistake that has been made. I grieve to learn that we have arrived too late, so far as your father is concerned."

"There have been one or two mistakes made, I think!" exclaimed Henry Mannering. "But first I should like to ask, have you an attested copy of my father's will?"

"Your father's will! No, he has it. He sent for it last Thursday week. Why do you ask?"

"Because my sister here declares that he has burned it."

"Burned it! burned his will! Has he made any other?"

"No," said Miss Mannering. "He expressly told me he did not mean to make any other."

"Indeed! you do not say so! Then his grandson here succeeds to the entire property."

"His grandson *there*!" cried Mr. Mannering. "What do you mean?"

"I was on the point of explaining," said Mr. Fenwick. "A very strange mistake has been made. This boy here is Jerome Mannering. The boy you have had staying with you for the last ten days is Jeremiah Mainwaring, the son of a gentleman connected with the press, and now absent from England—"

"And why didn't the young scoundrel say who he was?" cried Henry, furiously.

"This has been a regular plot to work on my father to destroy his will! This is your doing, Rose—yours and Mr. Fenwick's—"

"Be good enough to moderate your language, Mr. Mannering," said Fenwick. "If it were not that I am sorry for your disappointment I should be inclined to retort on you pretty sharply. If you will listen to what Mr. Framley here, of

Netherby Lodge, Stratford, has to tell you, you will learn how it is that this extraordinary blunder has been made."

"There has certainly been a strange error," said Mr. Framley, "but I do not see that any one is to blame for it. I sent, according to my friend Mainwaring's directions, to the White Horse Cellar early on the afternoon of the 19th, but his boy had not then arrived. My servant went a second time in the evening, and then learned that a boy, whom the coachman said was Master Mannering, had been hurt by a fall from the coach-box, and was lying very ill in the inn parlour. I sent for a doctor, who told me that the boy had been severely bruised and shaken, and was, moreover, evidently very delicate. He must be kept quite quiet for several days to come. He was too unwell to be removed to Netherby Lodge. I therefore engaged a room for him at the inn, and sent a nurse to attend him. I went two or three times to inquire, but he recovered very slowly, and it was not until this morning that I was allowed to see him. Then he told me who he really was, and I discovered what a strange confusion had taken place. I called on Mr. Fenwick, who I found was to have met him, and in his company drove down here. As for Mainwaring's boy, whom I shall now take to Stratford with me, I will answer for it, from what I know of both father and son, that they are incapable of lending themselves to any trick; and I must tell this gentleman that his epithet of 'scoundrel' is altogether misapplied."

"That remains to be proved," said Henry. "I shall see whether the law will not right me, at all events."

"You can do so if you like," observed Mr. Fenwick, "but I do not think you will get much by your motion. The will which Sir Jerome destroyed was a most unrighteous one—such as a man in the last hours of his life would be very likely to destroy, if he had any right feeling in him. Moreover, there is clear evidence that he was in full possession of his senses—as competent to make or revoke a will as ever he was in his life; and the act of yours which, as I have heard from Hampson, induced him to burn it, is not one likely to prejudice a jury in your favour."

Mr. Mannering left the room, and soon afterwards the house; nor did he reappear till the day of the funeral. At Miss Mannering's invitation, Mr. Framley and Jerry remained at the Park till the following morning, when she took leave of the lad with many assurances of regard, and a warm invitation to renew his visit during the summer holidays. Her real nephew, she said, would always be glad to see him.

"He may well be that," muttered Mr. Fenwick, as he glanced from the one boy's face to the other as they took leave of one another. "I expect Jerry No. 2 is the best friend Jerry No. 1 has ever had, and if he gave him a hundred thousand pounds he'd hardly requite the service he has done him. It's just as Sir Jerome said: the real grandson is a genuine Hartley to look at, puny and sickly—just what he could not endure. Small chance of Sir Jerome's burning his will in *his* favour. Nevertheless, justice has been done, though after a very strange fashion, it must be allowed. Well, 'all's well that ends well.'"

(THE END.)

CANOES, AND HOW TO BUILD THEM.

By C. STANSFELD-HICKS,

Author of "Yacht and Canoe Building," etc.

CHAPTER II.

WE will now take a glance farther north to the region of snow, where the Ice King reigns supreme, and where our friends the Eskimos build their snow houses. Now, I want you to think for a minute. I dare say if you try and build a boat, canoe, or, in fact, anything of the sort, you find it rather difficult work; you do not find it quite so easy as reading how to do it; and possibly, or perhaps I should say probably, you find it very unseaworthy when finished. And now remember you have all the appliances of civilised life to your hands. What do you think of a nail? Nothing! It is only one of the common accidents of your life. Put yourself in the position of having no nail and no means of getting one. What would you do? Put yourself if you can for a moment in the position of the Eskimo. What is his

principle of dining would not suit either of us, I think.

The Eskimo canoe is built of skin sewn together over a framework of bone, and is decked completely in by skin except the opening in which the occupant sits, which has a coaming of three or four inches high round it to keep the water out. The canoe is long for its breadth, about twenty feet, by not quite two feet wide, and is flat-bottomed, low amidships, rising at the ends. An illustration of one has appeared in the B. O. P. A double paddle is used, rather long, and it is impossible to imagine a boat more suited to the region in which it is used. Able to go with safety through a rough sea, light enough to be hauled up on an ice-floe or hauled over the ice for long distances to open water, it is indispensable to its owner, who uses it for

galley is quite different from the Clavagh hooker, and both are the antipodes of the north country coble, while the Thames bawle-boat, the Yarmouth smack, the Cornish lugger, and the Scotch herring-boats are all again different, and yet these boats are all intended for one purpose—fishing, and are all made by natives of one country—Great Britain!

Many of the canoes of the South Sea Islanders are most beautifully finished, the paddles belonging to them being profusely carved, and finished with a perfection that we rarely see in civilised workmanship. I dare say, in looking at specimens of the handiwork of savage nations, you have often wondered how it was possible to produce such results with the apparently inadequate means at the disposal of the makers, but this wonder lessens when we remember that time is of no object to a savage, and he will therefore spend hours of work with a very trivial result, the carving of perhaps one paddle being a work that would exhaust the patience of any civilised man. The only exceptions that occur to me are sailors, some of whom certainly spend an enormous amount of time and trouble on little matters of ornament, such as fancy knots, etc.

The canoes constructed by savages being nearly always made from the trunk of one tree, could be made of almost indefinite length, but it was not so easy to give beam to such craft, that being regulated by the diameter of the tree, and as trees do not increase in diameter in proportion to their height, an unusually long craft would be very crank in a seaway. This the savage would naturally try to obviate, and hence the outrigger, which has the effect of making the narrowest boat stable and stiff under sail. In ordinary weather the weight of the outrigger to windward would be enough to keep the canoe steady, and when the wind freshened what could be easier than to send a few hands out to sit on the outrigger to act as shifting ballast?

A very remarkable instance of savage skill in this class of canoe is the flying canoe of the Windward Islands. These islands lie in such a position that there is always what is called a "soldier's wind" blowing between them—that is, a wind on the beam, allowing one long reach to be made with almost a certainty of fetching the desired port. Still, it is well in such a case to be as much to windward of your destination as possible, as one can always "bear up" and run down off the wind to the port, but it is not so easy if the craft by some means drops to leeward for it to work up to windward again. To meet this requirement the builders of the flying proa adopted a remarkably clever design. The leeward side of the canoe is left perfectly straight and flat, so as to oppose the greatest possible lateral resistance to the water and thus prevent leeway, while the windward side is shaped in the ordinary way. In fact, the canoe is something like a half-breadth model; from the windward side project the outriggers, with a small canoe at their ends. When the canoe reaches its destination the mast which is amidships, raking forward, is raked towards the other end of the canoe, and the huge sail swung round, so that what was the bow of the boat becomes the stern, and *vice versa*. Thus the flat side is still kept to leeward, and the canoe is ready for her homeward voyage.

The canoes of New Zealand are beautifully made and generally profusely decorated. Some of the large war canoes are of enor-



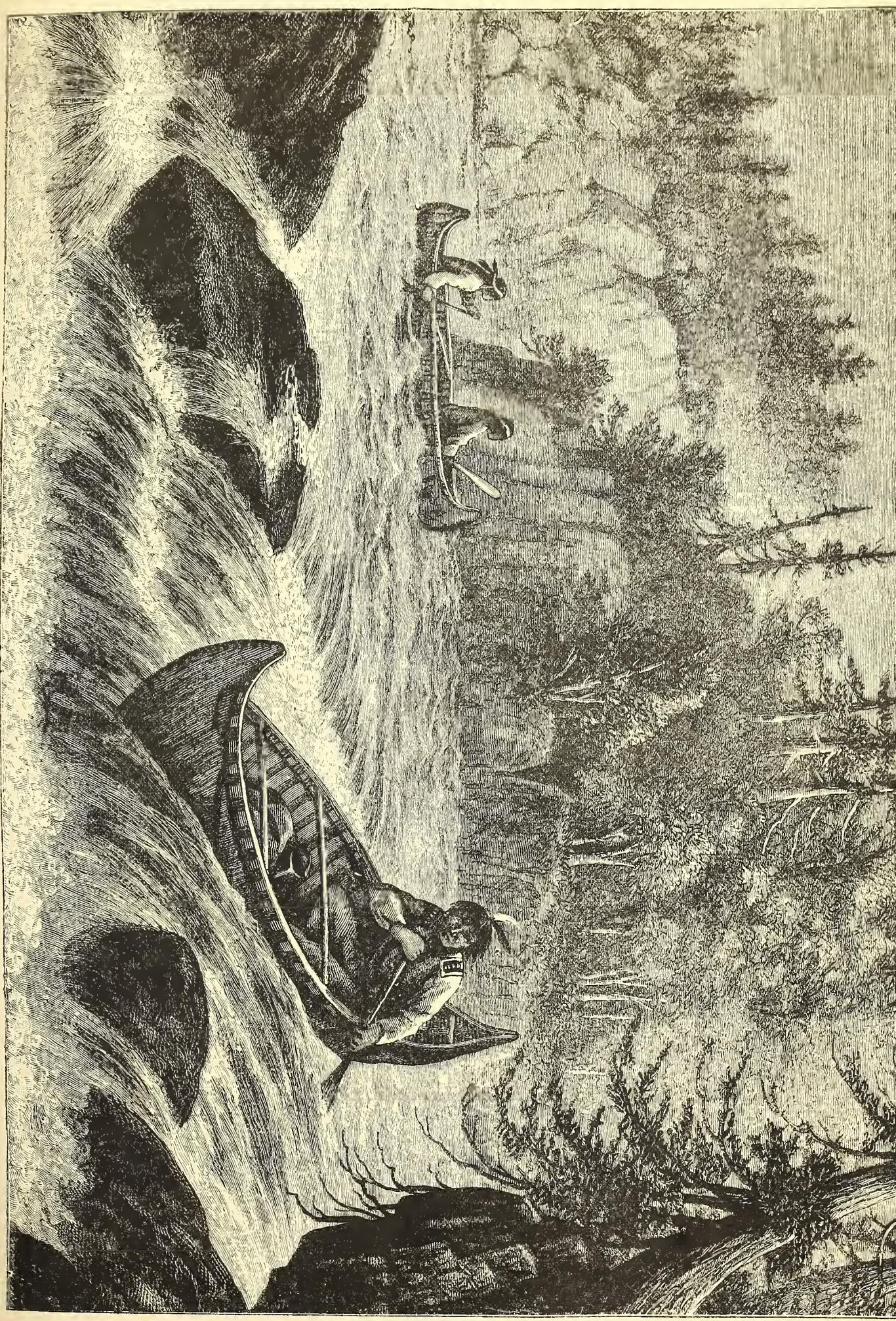
Canoe and Outrigger.

habitation? Snow. His hunting-ground? Ice. No wood but drift-wood, no iron. But you say his boat is made of skins. Yes, but how did he get the skins for the first boat, or the sinews to sew them, or the bones to make the needles? How does he manage not only to support life, but to be happy under all the difficulties of his surroundings and that amid the severities of an Arctic winter, with cold below zero. Although we are only having a chat about canoeing, we can pause for a moment to think of the blessings and benefits we enjoy through God's mercy, and also to remember that the savages we despise, and that are in many ways inferior to ourselves, are wonderful examples of the possibility of existing under circumstances that would appear at first to be insupportable. I remember when a lad thinking of the noble savage and of the free, jolly life he led. Why, there is not a boy in England that is not better off than an ordinary savage. I do not mean as regards Christianity, education, etc., but simply in a physical sense. It may be very jolly to be free on the prairie, but it is not so jolly if buffalo are scarce and nothing can be got to eat; and there is nothing especially amusing in fishing over a hole in the ice, with the thermometer below zero, knowing that your only chance of dinner is in catching something that does not want to be caught, and a few days of the "no catechee no habee"

fishing and sealing. In pursuit of seals he pushes off, armed with a barbed harpoon with a bone head, having a line attached to it, secured at the other end to a large inflated bladder. He sees his quarry before him, and with a vigorous sweep of the paddle he is within range, and the harpoon, hurled with unerring aim, is buried in the blubbery body of the seal, which immediately dives under water, but finds itself hampered in its movements by the float, and soon has to come up to breathe, when another harpoon or a lance renders it fit for the cooking-pot.

In all such primitive constructions one cannot but remark that although they may differ widely and completely in every detail, yet each type of canoe is exactly suited to the conditions under which its builders intend to use it, and in most cases is so completely adapted for its intended work and to the means at hand for building and repairing, that civilised industry is able to do very little towards improving the principles of their construction. Thus, the kayak is exactly suited for the rough waters of the ocean, and would be useless for the purpose for which the birch-bark canoe is intended, while the latter would be equally out of place in the Arctic regions, and on the ocean would be very much "at sea." This adaptability of form of boats to their surroundings is not confined to canoes, but is found to exist in all forms of boats. The Dutch lugger and

North American Indians Shooting the Rapids in Birchbark Canoes.



mous size, holding more than one hundred men. The rowers pull or paddle double-banked, and a platform is erected to accommodate the chief and his friends. These large canoes are propelled at a great rate, and the crew generally keep time by shouting and singing as they labour at the paddles and urge the great canoe through the water.

Many of the South Sea canoes are double—that is, formed of two canoes parallel with one another, a platform being thrown over them amidships, and in some cases a house erected on it. These canoes are generally steered by a long oar, and are propelled by large sails made of matting. The boats used in China are called sampans, and generally have a cabin aft. Their form is much the same as the Norwegian prām, which is still used on board Norwegian ships. It is round-bottomed, something like the section of a barrel, the stern being much wider than the bow, which curves upwards and out of the water for two or three feet, ending in a small flat half-moon-shaped piece of wood, to which the ends of the planks are fastened, the stern being also flat and semicircular. It is an easy sort of boat to build and tows remarkably well. The corragh used on the west coast of Ireland is of the same shape, but constructed of canvas over a framework of wood. On the Severn and in Ireland a curious kind of craft called a coracle is used. It is something like a half walnut-shell in shape, made of skins or tanned leather over a wooden framework. Illustrations of these were given some time ago in the BOY'S OWN PAPER.

There are many other curious forms of craft that can hardly be called canoes; for instance, the balsa of the South American coast is simply made of straw or inflated skin, and its navigator sits astride on it and paddles unharmed through the tremendous surf that breaks on those shores. Allied to this is the catamaran of Madras, which simply consists of logs fastened together, and on which the rower sits navigating the rude affair with a long paddle. As the catamaran cannot sink it is enabled to pass through a surf in which the best constructed boat would founder. But perhaps the most original craft of all is to be met with on the Nile, and in this case we have the manufacturer of a saleable article turning navigator to take his goods to market and using those goods as the means of conveyance as well as of trade. Ingenuity can hardly go further than this. I allude to the Egyptian potter, who, having a sufficiency of earthenware pots, lashes them together into a sort of raft decked with rushes, and calmly steers his strange craft to market, enjoying his "otium cum dignitatem." In the same way the gigantic wood-rafts of timber-producing countries are floated down to their destination bearing a whole village of huts, and having quite a population, the numerous crew taking their wives and children with them. As they pass various parts of the river where portions of the wood are consigned those parts are detached, until at length the raft, or what is left of it, reaches the last of its numerous ports.

Although many canoes of savage tribes are intended for sailing, it is difficult to find in them any means of offering lateral resistance and preventing leeway, with the exception of the flying proa, the construction of which has been alluded to. Keels, centreboards, and leeboards, all of which are intended to give lateral resistance, seem only to appear in craft constructed by civilised man. And some contrivance is absolutely necessary to prevent leeway, for a vessel deprived of these would only be able to sail with the wind and be incapable of beating to windward against it.

This indeed was the case even with large ships down to a comparatively recent date. It is not many years ago that large sea-going vessels had to wait weeks together for a favourable wind, their build being so unsuited for beating to windward that it would have been mere waste of time for their cap-

tains to put to sea until a fair wind arose. In the present day most sailing-vessels are so constructed as to be able to make at all events some way to windward against an adverse breeze, though, of course a square-rigged merchant-vessel, though a clipper amongst her own class, would do very little against a smart yacht or other fore-and-aft-rigged vessel, which on a dead beat to windward would soon leave her out of sight to leeward, as any fore-and-aft-rigged vessel can sail several points nearer to the wind than a square-rigged craft, and would thus gain on every tack, even if only going through the water at the same speed.

(To be continued.)

TWO HOURS WITH A TROWEL.

BY THEODORE WOOD,

Author of "Our Insect Allies," etc.

PART II.

OUR next tuft we find to consist of nothing but small lumps of hard, dry clay, so unpromising in appearance that we are more than half inclined to pass it by without examination. On shaking it, however, we are astonished to find that quite a little family of Pill-beetles had taken refuge within it, and are now lying motionless, with their legs and antennæ packed neatly away beneath their bodies, in the hope of escaping observation. One or two of these go into the collecting bottle to replace damaged specimens; the remainder are left to their own devices.

Clinging closely to the bark of the tree which has been left bare by the removal of the turf are several of the pretty little yellow-spotted *Dromius* beetles, which in the warmer seasons of the year are so plentiful beneath the bark itself. Crouching in a cranny, too, is a beautiful specimen of one of the larger ground-beetles, *Cyclus rostratus*, looking like a huge weevil, were it not for its long and straight antennæ. Two or three more pupæ, too, find their way into our pill-boxes, and when we transfer our attentions to a neighbouring elm we have already made a very fair number of captures.

Our first discovery here is a very curious one—viz., a kind of stag-beetle cemetery, quite a large collection of jaws, wing-cases, and legs being packed away in one of the angles formed by the roots. How they got there is a mystery, for the insects would hardly have arranged to die in company in a certain spot, and we can scarcely suppose that any marauding animal which had been preying upon them would so neatly have disposed of the portions which were too tough for his powers of digestion. And then, do animals eat stag-beetles? We have once seen a dog do so, but he howled grievously for a long time afterwards, and evidently would not have cared to repeat the experiment; and the hero of the present banquet, if banquet it has been, must have got through at least twenty of the beetles. So we are again puzzled, and are forced to give up our speculations in despair.

Insects are not quite so numerous here, but we bottle a specimen or two of the very pretty little *Pedulus littoralis*, with its blue wing-cases and scarlet thorax and abdomen. There is quite a cluster of woodlice, too, in one corner of the tree, and beneath a piece of projecting bark is an old spider's web, with the remains of various luckless creatures which have furnished the owner with a meal.

Just as we are leaving the tree we turn up rather a curiosity in the shape of a limp and sluggish newt, which must have travelled for a long distance before finding a retreat to his liking, for there is no pond within two or three hundred yards. We are rather puzzled to know what to do with him, but finally cover him carefully up beneath a sod, in the

hope that he will manage to survive until the spring warmth rouses him once more into active life.

So quickly has time passed by that we shall only be able to devote a few minutes to the fence, and we therefore set to work at once, dragging back the grass and weeds from its base, but not stopping to shake the tufts as before. Scarcely have we worked over a yard of ground when we find cause to regret that our time is so limited, for insects, spiders, and centipedes in endless variety are clinging to the fence, or burrowing rapidly into the earth in order to escape from the unwelcome cold of the outer air. Beetles are especially numerous, and in some cases it is almost as much as we can do to examine them all and see that nothing of value is allowed to escape. For a quarter of an hour or so we are busily employed, and when at last we are obliged to desist from our labours, we do so with the firm intention of revisiting the meadow at an early opportunity, and working the entire length of the fence in earnest, a task which will oblige us to spend at least two more hours with the trowel.

OUR NOTE BOOK.

THE RAILWAY DOG.

During a recent visit to Wolverhampton, "Help," the fine colley dog that collects funds for the orphans of railway men, and who has his headquarters at the chief offices of the Amalgamated Society of Railway Servants, City Road, realised by his mute appeals the sum of £25 8s. 5d. The dog had collected over £200 for the orphans during the present year up to September.

"HE'S A BRICK!"

Plutarch, in his life of Agesilaus, King of Sparta, gives us what is claimed to be the origin of this quaint and familiar expression, though we have heard other explanations, one at least of which has been referred to in our columns. On a certain occasion an ambassador from Epirus, on a diplomatic mission, was shown by Agesilaus over his capital. The ambassador knew that the monarch, though only nominally King of Sparta, was yet practically ruler of Greece, and he therefore expected to see massive walls rearing aloft their embattled towers for the defence of the chief towns; but he found nothing of the kind. He marvelled much at this, and spoke of it to the king. "Sire," he said, "I have visited most of thy principal towns, and find no walls reared for their defence. Why is this?" "Indeed, Sir Ambassador," replied Agesilaus, "thou canst not have looked carefully. Come with me to-morrow morning, and I will show thee the walls of Sparta." On the following day the king led his guest out upon the plains, where his army were drawn up in full battle array, and, pointing proudly to the serried host, he said, "There, sir, thou beholdest the wall of Sparta—10,000 men, and every man a brick!"

BOYS' "PENNY DREADFULS."

Several correspondents have forwarded us within the last few weeks loose advertisement sheets of literary trash and garbage addressed to boys, which they had found between the leaves of their BOY'S OWN PAPER. We thank them for this communicating with us, but if they would really assist us to stop such pernicious practices we would ask them kindly to carry the matter a little further. Of course, as we have more than once explained, and as we should think must be obvious without any such explanation, all such advertisements are inserted by unscrupulous persons after the numbers or parts containing them have been purchased at our office in the ordinary way of business, and

removed beyond our control. It is quite impossible, therefore, for us alone to stop the disreputable practice; it is but one of the many penalties we have to pay for our success; yet our readers may help us very materially. The mischief is clearly done either at the booksellers' who supply the complainants or at the wholesale agents' from whom these booksellers themselves obtain their supply. Hence, what we would ask is this: that whoever boys or their parents find such surreptitious insertions they should at once complain to the bookseller from whom they purchase. It will then be for the bookseller, if he is himself only a sufferer, to bring the complaint promptly before his wholesale agents; or if he does not like personally to do this, then to furnish us with their names in confidence, and we will

soon bring such pressure to bear as is likely to prevent any repetition of the nuisance. Some time ago we were, thus aided, able to trace the offender, a foreman packer in a most respectable firm, who had been seduced by gifts of money privately to insert the obnoxious bills in all the BOY'S OWN PAPERS passing through his hands. We need scarcely say that there has been no further cause for complaint from the booksellers supplied by that firm! May we not solicit the help of all our friends in this matter?

REWARDS FOR HEROISM.

The committee of the Royal Humane Society has just completed the investigation of an unusually large number of cases of saving life, principally in the United King-

dom, and has conferred rewards on seventy-nine persons who, in many cases under circumstances of great gallantry, rescued eighty-two others from drowning. A significant feature of the cases is that a considerable number resulted from accidents while bathing, and it is noticeable that many of the rescued were "unable to swim." Of the seventy-nine cases, medals have been conferred upon fifteen persons, one also receiving the clasp; forty-six received testimonials; and seventeen pecuniary rewards. The recipient of the clasp (who had previously received the medal) is Mr. F. J. Davis, second officer of the P. and O. Company's steamer Poonah, who on the 15th of July plunged into thirty feet of water in the Royal Albert Docks and rescued a lad named Pring. The plunge involved a long illness.

THE COUNTIES OF ENGLAND.

(See the Coloured Plate issued with Monthly Part.)

THERE is a popular superstition that "England was first divided into counties by Alfred the Great." It would be difficult to find a statement further from the fact, as instead of the country being "divided into counties," it was the aggregation of the counties that formed the country, and this took place long prior to the days of good King Alfred. The counties are the representatives of the old independent kingdoms, the union of which gave us our modern England; those kingdoms, in short, which by another error are occasionally assumed to have been always seven in number and forming a heptarchy.

Kent, Sussex, Essex, Suffolk, Norfolk, Middlesex, and Surrey are all ancient kingdoms, and Lincolnshire, or Lindeshe, was at one time an independent State. In later times, however, when the country was complete and the divisions assumed the dimensions which they now retain, Strathclyde, Northumbria, East Anglia, Essex, Mercia, Wessex, and West Wales were the groups from which the shires immediately came. Durham and Northumberland were parts of the old Northumbria, and Westmoreland and Cumberland were formed out of Northumbria and Strathclyde. The fifteen shires of the Danish law were scattered over Northumbria, East Anglia, Mercia, and Essex. Northumbria yielded Yorkshire—subdivided into three ridings or trithlings; East Anglia gave Norfolk and Suffolk; Essex gave Essex; Mercia gave Leicestershire, Derbyshire, Rutlandshire, Huntingdonshire, Buckinghamshire, Bedfordshire, Nottinghamshire, and Lincolnshire—the latter divided into three parts, Lindsey, Kesteven, and Holland, with the first of them, like the county of York, divided into three ridings; Cambridge-shire came from Mercia and East Anglia; Lancashire from Mercia and Northumbria; and Hertfordshire and Middlesex were parts of Mercia and Essex. The eight shires of the Mercian law lay entirely in Mercia, and were Cheshire, Staffordshire, Shropshire, Worcestershire, Oxfordshire, Herefordshire, Gloucestershire, and Warwickshire, the latter divided into sipesocns. The nine shires of the West Saxon law lay all in Wessex, and were Somersetshire, Berkshire, Wiltshire, Dorsetshire, Devonshire, Hampshire, Sussex, Surrey—divided into rapes—and Kent or Cantescyre—divided into lathes or lests, yet again subdivided into vills. Cornwall was formed out of the West Saxon and Cornish kingdoms, and was itself divided into subsidiary shires. In all the Anglian counties the subdivisions are known as wapentakes, while in the rest they go by the name of hundreds, the hundred being the Old English hundred, one hundred and twenty—for such is the real

meaning of the word—as still living in the long hundred and leng ton of our country markets. Each hundred was supposed to contain a hundred and twenty families, and was subdivided into tithings or tenths, each of twelve families, the twelve families giving us the twelve good men and true who form the British jury.

Cornwall, as we have said, was divided into shires instead of hundreds, and there were many shires, some still existent and many non-existent, beyond the forty. Even the City of York was divided into ten shires, and modern Yorkshire includes the much older Borgheshire, Craveshire, Richmondshire, Kirbyshire, Riponshire, and Hallamshire, while Bedlingtonshire, Northamshire, Allertenshire, and Islandshire in Durham, Hexhamshire in Northumberland, and Winchelcombeshire, absorbed by Gloucestershire, still crop up in official papers.

The distinguishing characteristics of the English race from the very earliest times, even in their old continental home, was their power of self-government. That which formed the parish, the manor, or the township in later times, was the village community, and in it the political and judicial organisation was complete. The townships formed the hundreds, the hundreds formed the county, but all were organised on the same lines. The township had its tungemot and tungerefa, just as the shire had its folk-mot and the kingdom its witan. This was the earliest grouping—the old tun, whence came the name, was the homestead surrounded by a quickset hedge, inferior in defensive power to the more wealthy man's house begirt by mound and ditch, which in its name of burh gave us our present burgh and borough—but as years rolled on the ecclesiastical division or parish being in so many cases conterminous with the township, the secular name died out, the parish became the unit, and the vestry meeting succeeded the tungemot.

Before the coming of William the Norman each county had two officers, the earl and the sheriff, the earl being the representative of the county before it lost its independence, the sheriff being the representative of the king. The earl's authority was thus a constantly diminishing one, while the sheriff's surely increased. As representing the king, the sheriff began to hold his courts for the administration of justice, hence the "county courts," and the appeal from these to headquarters gave us the higher Courts of King's Bench, Common Pleas, and Exchequer, now amalgamated into the High Court. The sheriff was also the financial representative of the Crown and levied the rates, and when representative government became officially recognised it was the sheriff who elected the

knights of the shire. In the time of Henry VIII., however, the sheriff was deprived of much of his dignity and a new officer appointed, the Lord-Lieutenant, who now holds the command of the militia and yeomanry, keeps the records of the quarter sessions, is the head conservator of the peace, the direct representative of the sovereign, and occupies very much the position of the old earl, who represented his county's independence in the past.

The history of the counties is well shown in the arms, which, to the confusion of all the heralds, they persist in bearing. A county, say the heralds, is not a country, is not a corporation, is not a person, and cannot bear arms. But it does, and they continue to be publicly displayed on its official documents, buildings, and uniforms, and the heralds are in despair. Many of the shires have adopted the arms of the town from whence they take their name, and the town being an heraldic entity the heralds are therein satisfied. Others, on the contrary, have the old devices under which their people's forefathers marched to battle. Kent has the white horse of the Jutes, Essex the daggers of the East Saxons; others bear the arms of the old earls—Cheshire has the whoatshoaves of Earl Randle, Buckinghamshire the swan of the De Bohuns; others bear punning devices—Oxford has the ox treading the waters, Cambridge has the bridge and the boats. Of course Berkshire has the five heads and Nottingham the three crowns, and of course Hertford has its stag in the park, Derby its stag in the ring fence, and Huntingdon its stag being shot at under a tree in remembrance of famous Robin Hood, whom it claims as its earl. Cornwall has its eight castles, though its fifteen balls "one and all" would perhaps be more appropriate; Devon has the castle of Exeter, Surrey has the castle of Guildford; Rutland, Somerset, and Wilts have their well-known badges, while Bedford, Dorset, Durham, Gloucester, Leicester, Salop, Worcester, and York bear the arms of their county town.

The names of the forty are not easily remembered by every one. For the benefit of those in search of an "artificial guide to recollection" we give the three following astonishing hexameters from one of the memory books:—

Nor cum-dur; we la-york; che-de-not-line;
shrop-sta-ic-rut norf;
Her-wo-wa-northa; bed-hunt-camb-suff;
mon-gl-oxfo-buck-hart-ess;
Som-wilt-berk-middlesex; corn-dev-dors-
hamp-surrey-kent-suss.



Studies from Nature. Autumn in the Woods.

ARMOUR IN HISTORY AND ROMANCE.

BY JOHN SACHS.

CHAPTER VI.

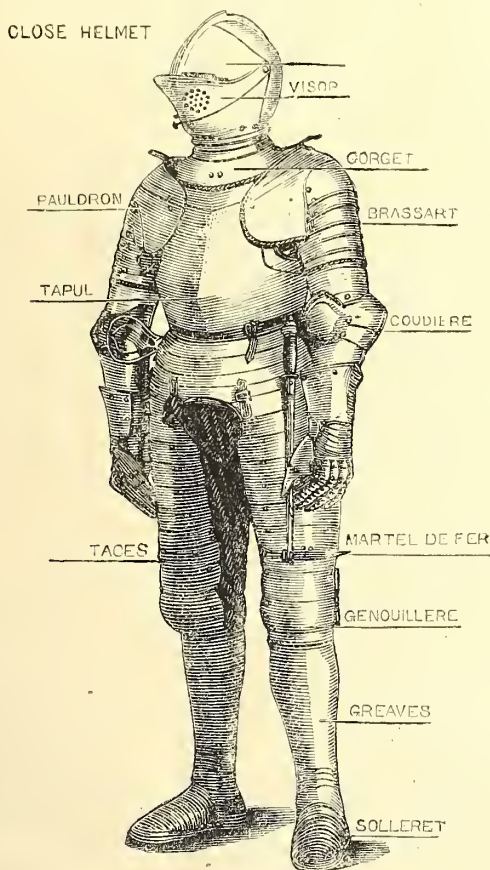


Fig. 40.

DURING the reign of Henry VI. the fashion of the salade as a helmet was adopted in this country. The word comes from "Celata," Italian, also German "Schale" or "shell." It was constructed of various patterns. The specimen we engrave (Fig. 32) is from one in the Tower of London. It is an iron cap that could be shut over the chief part of the face, a slit being pierced through the front for the sight. The back was long and curved, so that it could be thrown backwards and worn like a lady's bonnet when not wanted for actual warfare. Sometimes it was constructed without the eye-slit, and a visor and mentonnière or chin-piece was added. It was made very heavy for jousting, and of a thinner metal for archers. The lighter salades had also moveable plates behind constructed like the scales of a lobster's shell, so that the head could be moved backwards and forwards with facility. From Shakespeare's description it was used by the London troops.

In the second part of "King Henry VI." Jack Cade is supposed to soliloquise and pun to himself. "Wherefore, on a brick wall I have climbed into this garden—to see if I can eat grass, or pick a sallet (salade) another while, which is not amiss to cool a man's stomach this hot weather. And, I think, this word 'sallet' was born to do me good: for, many a time, but for a 'sallet' my brain-pan had been cleft with a brown bill; and, many a time, when I have been dry, and bravely marching, it hath served me instead of a quart pot to drink in: and now the word 'sallet' must serve me to feed on."

We have used the word "visor," which we now explain. It was a moveable plate of steel that could be fitted to the helmet at will. When not wanted it was left at home, but

in full uniform it was always worn. Its use was as a protective plate that could be shifted upwards for the purpose of refreshment. The poet Shakespeare uses the word "beaver" for the visor, from which we get our word beverage. In Hertfordshire the farmers still

having worn his "beaver up" (Act i. Scene 2); also in "Henry IV., Part I." (Act iv. Scene 1),

"I saw young Harry,—with his 'beaver' on,
His cuisses on his thighs, gallantly arm'd,—
Rise from the ground like feather'd Mercury."

This word "beaver" has been confounded with the word "bavière." The terms mentonnière and bavière were both applied to a chin-piece that could be lowered for speaking and for fresh air. This protection was often adjusted to the salade and other helmets. Fig. 33 represents a

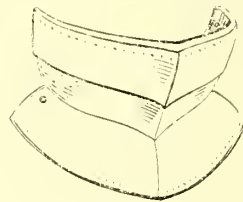


Fig. 33.

bavière or mentonnière as used in the latter part of the fifteenth century; also it can be seen "fitted" in Fig. 26 and Fig. 27. The lighter salades were often covered with velvet and the ornaments gilt. They were also pierced with holes for fixing plumes, wreaths, and mantling. Figured salades covered with velvet can be seen in the Tower of London.

The next helmet invented was the Armet. This term is a diminutive of the word "heaumet." According to the description given by the Baron de Cosson, "Before the invention of the armet all helms fitted on the top of the head, or were put right over it; but in the armet the lower part of the helmet opened out with hinges, so that when put on it enclosed the head, fitting closely round the lower part. It was thus neater, lighter, and more moveable, while its weight was borne by the gorget." It was used in France in 1472, but it does not appear on English



Fig. 38.

term their second breakfast beaver. The monuments before the reign of Henry VIII. Ghost of Hamlet's father is described as [The armet appears in profusion in art work

from about the year 1500. We engrave a unique specimen of an armet that is now in the British Museum, but was formerly in the collection of Sir R. Meyrick. It is so constructed that it could be altered to the defence or sport required.

Fig. 34 is a profile view, Fig. 35 is the

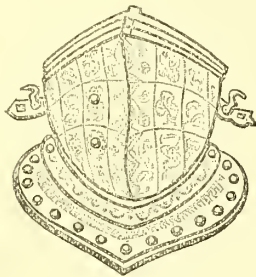


Fig. 35.

bavière taken off, Fig. 36 is a front view of the armet thus reduced, making a simpler and lighter helm, which Sir R. Meyrick terms the little armet. This beautiful specimen was not, however, of the orthodox shape, and we proceed to another example. Fig. 37 is an armet in the collection of the

Baron de Cosson. Another, but without the visor, is in the Rotunda at Woolwich.

A realistic idea of the appearance of knights and their armour in battle can be well seen in the picture by Paolo Uccello, which work was painted A.D. 1416, and is now in the National Gallery. It represents the Battle of St. Egidio, and from it we engrave the group of figures on the right of the painting (Fig. 38). The knight on the right has, we suppose by luck, in his semi-blinded state successfully avoided both the thrust of a lance and a sword, and is riding onward to strike the knight on the left with his *martel de fer* (a pointed hammer that was introduced in the reign of Henry III.). The opposing knight has raised his sword to guard against the blow.

The armour depicted is interesting. The back plate is composed of two pieces; the roundels and genouillères are very large, passe guards are added to the neck, the sollerets are still pointed, but the spurs have rowels. The knights of both factions have in their armets curious plumes and crests; the ground is strewn with fragments of lances, shields, etc. At the latter part of the reign of Richard III. armour assumed a fantastic and almost a grotesque form, particularly in the enormous fan-like elbow-pieces.

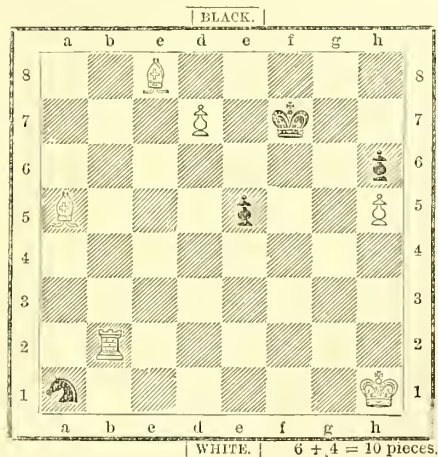
(To be continued.)

CHESS.

(Continued from page 46.)

Problem No. 87.

By H. F. L. MEYER.



White to play, and mate in two moves.

This problem illustrates the greatest liberty of the Black King.

SOLUTIONS.

(Continued from Vol. VI., page 718.)

PROBLEM No. 80.

1, R—R 6,
K×R. 2, Q×P, mate.
Kt×R. 2, Kt—R 5, mate.
Kt—B sq. 2, Q—B 6, mate.
Kt×P. 2, R—Kt 4, mate.
P×P. 2, Kt—Q 6, mate.
P—Q 7. 2, R—Q 2, mate.
P—K 4. 2, Q—Q 5, mate.

PROBLEM No. 81.

1, Kt—K B 5,
B×Kt. 2, Q—K 6 (ch.), any. 3, B or Q mates.
K—K 5. 2, Q×K P (ch.), any. 3, Kt or Q mates.
K—B 3. 2, Q×B P (ch.), K×Kt. 3, Q—Q B 8, mate.
Kt—Q 6. 2, B—Kt 7 or Kt—B 6 (ch.), etc.

PROBLEM No. 82.

1, Q—R 3,
K×R. 2, B—B 7, mate.
K—Kt 4. 2, Q—Kt 3, mate.
R—Kt 4. 2, Kt—K 3, mate.
R—Kt 5. 2, Q—Q 3, mate.
R—Kt 6. 2, Q×B P, mate.
R—R 2. 2, R×P, mate.
B×R. 2, B—K 2, mate.

In six of these seven variations the King is blocked by his own men, namely, in three cases by the one Rook, in one case by the other Rook, in three cases by the Bishop, and in one case by the R's Pawn.

PROBLEM No. 83.

1, K—Q 6, B—B 5 (ch.). 2, K—B 6, K—K 4.
3, Q—R 8, mate.
3, Q—K 4, mate.
K—B 5. 2, Q—B 6 (ch.), B—B 4 (ch.). 3, Q×B, mate.
3, Q—R 4, mate.
K—Kt 5.

To Chess Correspondents.

W. H. R. (Dudley).—In No. 80 there is no mate after 1, Kt—B 5, Kt×R.

R. W. B. (Leicester).—In No. 79 you have not given the best moves for Black. The very first rule in the "Chess Guide" (page 15) says that each player must endeavour to checkmate the adverse King.

H. M. (Bath).—It is already known that No. 77 can be solved by 1, Kt—B 7 (ch.).

H. M. (Forest Hill).—Your end-game will appear. The old rule of one Queen is the right one.

F. M. (Ihre No. 80 ist sehr gelobt worden.

OUR OPEN COLUMN.

[Original Etchings by R. Watson Councill, Bristol.]



WRECK OF THE DUNBAR.

Mr. G. D. HARRISON writes from Brisbane, Queensland, under date of August 20th: "I have read, with painful interest, the account of the wreck of the Dunbar at Sydney, which appeared in your issue of May last. It is very correct, with this exception—the 'Gap,' where she was wrecked, is on the south side of the entrance to Port Jackson, not on the north side, as the account states. I remember the occurrence well, as I was a resident in Sydney at that time. On the day following the disaster I went out to the scene of the wreck, and shall always vividly remember the painful sight of the mutilated bodies being dashed about by the breakers amongst the rocks at the foot of the cliff. To show how sudden and unexpected the occurrence was to the poor creatures on board, the body of one female was washed on shore with a piece

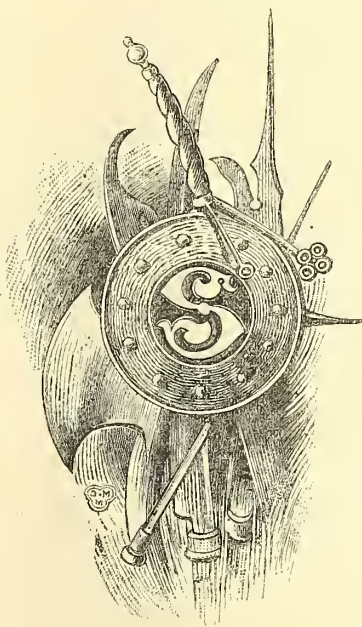
of unfinished crochet or needlework in her hand that she had evidently been engaged with.

"The gloom thrown over the city by the occurrence was intense, as so many well-known and respected old residents perished. The occasion of the interment of the bodies, and portions of bodies, recovered was one that I shall never forget, with all its tragic surroundings. The funeral procession took place in the evening, by torchlight, accompanied by a large number of people, every sign of mourning being exhibited, by the shops being closed, blinds down, colours half-mast high, etc. The bodies were interred in two large yawning graves in the Newtown Cemetery—now, the coffin of an adult, followed perhaps by that of a child—all taken promiscuously out of the hearse, in some cases without name on as being unidentifiable, the clergyman reading the funeral service over the whole; Johnson, the solitary survivor, standing by the side of the graves, and the surrounding people, with scarcely a dry eye amongst them. There was something very solemn and impressive in the sight, which would never be forgotten by those present.

"I do not think, unless it were the cases of the foundering of the steamer London in the Bay of Biscay, and the loss of the Royal Charter on the Welsh coast, there has ever been, with all its surroundings, a more heartrending case of shipwreck than that of the Duubar."

Correspondence.

*** Don't forget to order our Special CHRISTMAS PART, price 6d., to be had of all booksellers.*



TAMP COLLECTOR.—Stamps are specially printed, so that the marks of them, if not indelible, cannot be removed without discolouring the stamp. This is done to prevent fraud, and there is consequently no known way of taking inkstains out of stamps without injuring them.

JUMBO.—Heigho! Indian clubs, O Jumbo! are elongated dumb-bells. They are not insurance societies! You will find nothing in our articles about an Indian's "expectation of life," but you may discover a health-giving exercise for your policy-holders, and so we give the information you ask for. The articles on Indian Clubs were in the August and September parts for 1882.

B. C. G.—1. You need not attend personally to take out a patent. You can send the documents through the post. You generally apply for provisional protection, the advantage of which is that you gain experience in working, and do not bar your right to some foreign patents by publication. 2. You can file your final specification at once if you like, and take up your patent for four years.

AN EGG COLLECTOR.—1. Our plate of birds' eggs was issued with the part that began the articles. It was the part for May, 1880; the articles ran through the June and July parts. 2. With regard to self-education, by "instructors," "educators," or "cyclopedias," we should say begin with the one that may be publishing at the time, take it in week by week, and completely master one number before you buy another.

O. U. P.—A hide when it is "green" will weigh about eighty-five pounds, but when it is dried or salted it will weigh only about thirty-three pounds.

OUR BUOYS.—They all mean something, of course. The way into harbour is between the lines of buoys; those on the starboard side as you go in are painted red, those on the port side black. A buoy with red-and-black horizontal stripes is always in the centre of a narrow channel, and the ship should be steered as close to it as possible. Red-and-black vertical stripes point out the ends of spits and reefs with channels on both sides of them. Red-and-black chevrons point out a solitary rock or obstruction, with deep water all round. If you find a red-and-white chequered buoy near a black-and-white chequered buoy, the buoys point out two obstructions, and the red is on the starboard side of the channel between. A green buoy shows that a wreck has obstructed the channel; and when two green buoys are used, that with an even number is on the starboard side of the way in, that with an odd number on the port side.

A. L. A.—There is a "Magic Lantern Manual" published by Warne and Co. It costs a shilling.

H. BELL.—The West India Docks were opened in 1802, the London Docks in 1805.

J. B. P.—It is but a bootless quest. Trade names for patented articles do not always owe their derivation to dictionaries, but spring from the imaginative mind of the inventor, regardless of language or grammar. Sometimes they betray a sense of humour. Melbourne, for instance, gloried in a tailor who advertised his six sorts of trousers under the original-looking titles of "The Shoortophitnplese," "The Nobianatie," "The Kwithkik," "The Hasilikum," "The Ceuzashun," and "The Kwithchise."

C. DOBSON.—1. Your best plan would be to go to the Natural History Museum at South Kensington, where you will see a series of cases on the first-floor each devoted to the bird, with its nest, eggs, young, etc. The fact of the nest being placed in position on the usual tree, with the proper surroundings, will teach you more in ten minutes than all the books in the world. 2. There are many other birds extinct in recent times besides the moa. New Zealand had a gigantic goose that has disappeared. You will find one of the skeletons at South Kensington. The dodo is also there.

ATLAS.—Such an atlas would cost a couple of guineas. Apply for list of atlases to Stanford, of Charing Cross; or Letts, Son, and Co., King William Street, London Bridge.

R. V. COULCHER.—Break the glue up into small pieces and put them into the pot until it is half full. Then pour in cold water until the pot is full to the brim, and leave the glue to soak for twelve hours or more. At the end of that time you will find the pieces of glue have absorbed nearly all the water, and swollen up so as to nearly fill the pot. Do not add any more water to the glue, but place the pot inside another pot, and heat it up in a water bath, such as a proper glue-pot.

ROUGEMONT.—The Duke of Wellington was born in 1769, and died in 1852.

PERCY SHEPHERD.—1. Shakspeare's "As You Like It" is dated 1600. 2. Ten pounds. 3. There is no difficulty; "the lowest score in a cricket match in a single innings made by a club" was 0.

LASCELLES.—All the monthly parts are in print for 1882 and 1883. You can get them through any bookseller, or direct from us.

BEGINNER.—Shilling books, teaching you how to play the concertina, are obtainable from all music shops and instrument sellers.

A. J. Y.—Go by all means, and when you get there never write to an editor and "expect a satisfactory reply." The Canadian Offices are at 9, Victoria Chambers, S.W.

WOULD-BE SCULPTOR.—You can get modelling clay from Brucciani, Russell Street, Covent Garden; or Doulton's Pottery, at Lambeth.

R. J. SYMONS.—We are unable to remember a book "that gives an insight into the cutting-out of trousers," but would suggest that an old pair taken to pieces would answer every purpose. In the event of one pair only being available, a modification of the Highland costume might be adopted for the nonce.

UNCLE ARTHUR.—Is it not rather "Wastlers"—the "Wandering Minstrels"—from "waste," to wander? We do not know why the 17th of January is selected in Somersetshire for singing to the apple-trees.

IVANHOE.—A coloured plate of birds' eggs was in the part for May, 1880; a coloured plate of stamps is simply impossible, as a moment's thought would show you.

NIGGER.—There are no people that are really black. The deepest tint is a dark brown, and this is but a deeper shade of skin-colour which is found in all grades up to the pale buff of the Englishman. The freckles and spots which appear on some people are simply portions of the skin that have shaded down.

RADICAL.—The suggestion has been frequently made before, and declined. If you want to start a parliament among your friends or schoolfellows, do so, and it may succeed; but, carried on through a newspaper, it will certainly fail, unless perhaps the newspaper devotes itself entirely to it, and contains no other matter.

L. P. and AN ANXIOUS ENQUIRER.—For lightning-paper dry a thousand grains of pure nitre at moderate heat, place it in a dry retort, pour on it ten drachms by measure of strong sulphuric acid, and distil it until six drachms of nitric acid have been passed into the receiver. Then mix in a glass five drachms of the nitric acid with an equal volume of strong sulphuric, and after the mixture is cold immerse in it some thin, dry, unsized paper, pressing it down with a glass rod, covering the vessel with a glass plate, and leaving it alone for a quarter of an hour. Lift the paper out with the glass rod, throw it into a bucket of water, and wash it until it fails to redden blue litmus. Dry very gently, and take the very greatest care all through, as the slightest slip or mistake may necessitate a doctor's bill, if not a coroner's inquest. Hence all such matters are best not dabbled in by amateurs.

F. RICHARDS.—The coloured model of the barque was given away with the September part for 1882.

ROBIN.—Inquiries made at the consular offices in London would put you on the right track. For list of consuls and their addresses see Whitaker's Almanack or the London Directory.

B. T. E.—1. The era of the Parsees is reckoned from the accession of Yezdajira, on June 16th, 632 A.D. They have twelve months of thirty days each, and give subsidiary days at the end of the year. 2. The Hindoos call this the fourth age of the earth, and reckon from February 18th, 3102 B.C. 3. Gautama (Sakya Muni), the founder of Buddhism, died 543 B.C. He was contemporary with Nebuchadnezzar.

TIPPOO SAIB.—1. Mendelssohn died in 1847; his last piece was the "Night Song" (No. 6 of Op. 71). 2. Captain Marryat's books in order of date are—"Frank Mildmay," 1829; "King's Own," 1830; "Newton Forster," 1832; "Peter Simple," 1833; "Jacob Faithful" and "Pacha of Many Tales" in 1835; "Japhet in Search of a Father," "Pirate and Three Cutters," and "Midshipman Easy," all in 1836; "Swarleyow," 1837; "Phantom Ship," 1839; "Poor Jack" and "Olla Podrida" in 1840; "Masterman Ready" and "Joseph Rushbrook" in 1841; "Percival Keene" in 1842; "Monsieur Violet" in 1843; "Privatesman Sam" and "Settlers in Canada" in 1844; "Scenes in Africa (The Mission)," 1845; "Little Savage" and "Children of the New Forest" in 1847; and "Valerie" in 1849. He also devised "The Signal Code of Flags," and published it in 1837; and wrote an "American Diary," issued in 1839. His life, by Florence Marryat, was published in 1872.

T. E. R.—1. The spirit is alcohol, with a little colouring. Mercury is best for high temperatures; spirit for low ones, as it is more difficult to freeze. 2. Fahrenheit made a freezing mixture to give the intensest cold he knew of, and that gave him his zero. Since his time our knowledge of the range of temperature has been greatly increased. 3. Both by pressure and temperature.

BELLS.—Dumb-bells should never exceed two pounds in weight. Exercises with the heavy bells, as they are called, are useless, and their place has been taken by the Indian club practice.

A. ASPAN.—Apply to the Cyclists' Touring Club, 139 and 140, Fleet Street. Information as to bicycle roads and routes is easiest obtained through their various representatives.

RIFLE.—Get a Whitaker's Almanac, and see the name of the governor of the prison in which you wish to obtain an appointment. We do not think, however, you have the slightest chance of success.

A LOVER OF THE SEA.—If you were to love the sea a little less, and its literature a little more, how much better it would be! Lord Nelson was shot on board the Victory, and if you go to Portsmouth you can see the ship and the place where he fell. You are the only "lover of the sea" we ever heard of that was unacquainted with this fact. What a privilege originality is, to be sure!

A. TAPSON.—Buy our fifth volume and read "The Thrones of the Ice King."

A MERCHANT TAYLOR'S BOY.—You can dye the flags with Judson's dyes, or with ordinary colours mixed with varnish, such as you use for magic-lantern slides.

DIogenes.—1. Your science, like your name, is remarkably weak in the knees. "Astronomers," as you call them, are not so foolish as you imagine. The earth is in space, and the planets are in space, and the earth is "in the heavens" of the planets just as the planets are "in the heavens" of the earth. 2. If you wish to learn how to elubhaul a ship, buy Captain Burney's "Young Seaman's Manual," price 7s. 6d., from Messrs. Trübner and Co.

A. V. McCLELLAND.—1. We never heard of the publication you name, and we never recommend or depreciate a competing periodical. 2. A dollar is roughly worth four shillings and twopence, but its exact value varies with the rate of exchange.

G. COMER.—You can get the "Giant Raft" in our third volume, or in the series of Jules Verne's works, published by Sampson Low and Co. at seven shillings and sixpence each.

C. F. H.—You can get clay for modelling from any of the Italian image shops; or from Brucciani, of Russell Street, Covent Garden; or Doulton's, of Lambeth.

NATURALIST.—You can get materials for bird-stuffing at Burton's, 191, Wardour Street, Oxford Street.

F. WILLIAMS.—1. Paraffin oil gives the greatest heat, but a spirit-lamp is generally used for small boilers. 2. You will find how to build plank models in the boat-building articles in our August, September, and October parts for 1882.

A FAT ONE will find half a dozen articles on training in the second volume. They began in No. 74, and were in July and August parts for 1880.

BLACKHEAD.—1. Robert Burns was born in 1759, and died in 1796. 2. Metropolis is originally the city from which the measurements were made, then the seat of the Metropolitan or Archbishop, and now used as a general name for the capital of a country, district, or cluster of towns engaged in any particular trade.

CARNARVON.—1. Choir is pronounced quire. 2. All the paper is in print, but the number can only be obtained in the volume or part form.

G. M.—The best way to preserve birds' eggs is to blow them; in fact, no means of preserving them whole has yet been discovered. In our second volume we had a series of articles on eggs by the Rev. J. G. Wood.

II. J. RICHARDSON.—1. Take the number of innings, from it deduct the number of "not outs," and divide the total runs gained by the remainder. 2. Take the pads to pieces, wash them with soap and water and a little whiting, and make them up again. In other words, leave them alone.

GASPAR DISALO.—Maple back and Swiss pine front and sides is the usual arrangement. Wood for violins can be bought at Hill's, 72, Wardour Street, Leicester Square.

BIDDELL (Marlborough).—1. Leave the hazel stick in a dry, cool place until it is nearly dry. Then trim it and thoroughly sandpaper it, and give it a dressing of boiled linseed oil. When that has quite dried in give the stick a coat of French polish, and finish it with one or two coats of copal or hard spirit varnish. 2. No.

ST. MUNGO, JUNIOR.—See your back numbers for dumbbell exercises in "Athletic Training" and "Indian Clubs," and "Gymnastics;" for paint to stand fire in "Pottery Painting;" for softening bird-skins in "Boy's Own Museum." You can fix pencil drawings by giving them a coating of collodion, obtainable from any photographic-material shop.

ROUNDHEAD.—1. It is twelve o'clock at the first stroke of the large bell. The chimes are run through before the hour; the bell strokes, except the first, take place after it. 2. Clean with ammonia or vinegar.

BUE.—The use of "while" in the sense you quote is an archaism. Whether it is grammatical or not depends on the date of the grammar. Discontinue its use yourself, but do not despise, or correct, other people for using it.

W. B.—The recitation, "Curfew will not ring to-night," is by an American authoress. You will find it in Schaff and Gilman's "Library of Religious Poetry," published by Messrs. Sampson Low and Co.

NATURALIST.—Refer to the June part for 1882, with which we published a plate of all the British Birds, and identify yours for yourself.

L. A. KING.—"Cleanliness is next to godliness" is an old proverb, by some ascribed to Matthew Henry, the Commentator.

ABORIGINAL.—1. The game of knuckle-bones is pre-historic. 2. Write to the publisher. 3. We believe that Chambers's Encyclopedia can still be obtained in parts. Messrs. Cassell are now publishing a "Concise Cyclopaedia" that may be useful to you.

W. R. B.—Cost your drawings with collodion.

AN ARTICLED PUPIL.—1. A very good black is made by mixing vegetable-black with gold-size until the mixture is of creamy consistency. Black japan is generally used. To properly ebonise wood boil a pound of logwood chips for an hour in half a gallon of water, and brush the hot liquor over the work to be stained; and when it is dry give it another warm coat. Then mix an ounce of green copperas in a quart of hot water, and brush it over the work as soon as the copperas is all dissolved. Let each coat dry thoroughly before you put on the next, but do not dry by the fire. Size before you begin to polish. 2. Fir poles are used for ladders, the spokes being generally of elm.

H. H. B.—1. Guides to the Wye Valley are published by Messrs. A. and C. Black, Ward and Lock, etc., and are obtainable from most railway bookstalls. 2. Damp the wood on both sides, and dry gradually. 3. Buy your varnish ready-made. Mahogany varnish is made of four parts of gum sandarach, two of shellac, one of gum-benzoin, and two of Venice turpentine dissolved in spirits of wine, and coloured with dragon's blood.

A. CLARKE.—1. An able seaman in the Navy is paid one shilling and sevenpence per day. 2. Warrant officers are chosen from the ranks. 3. Apply to a post-office for Government pamphlet.

W. H. M.—1. For books on shorthand apply to Mr. Pitman, Paternoster Row. 2. The book-keeping books recommended for the Chartered Accountants' examinations are Hamilton and Ball's, published by Clarendon Press; Gordon's, published by Wyman and Sons; and Crelhni's, published by George Bell and Sons.

EARNEST ENQUIRER.—1. For appointments in the diplomatic service you must obtain a nomination before you are allowed to compete. Information you will get in any of the Civil Service Guides. Apply for guide to Stanford, of Charing Cross; or Warne, of Chandos House, Bedford Street, Strand. 2. You can get a two-shilling manual of precis-writing from same publishers. 3. It depends entirely on the peculiarities of the examiners.

SQUEAKER.—Water-colours are mixed with glue or gum when made into cakes, and a little glycerine is added when they are required in moist form. Hence when dry add glycerine.

S. R. M.—The first London Bridge was of wood. It was built in 1014. The second was of stone, built in 1209. New London Bridge, the present one, was begun in 1824.

YOUNG SEPTONIAN.—You can get any book from a first-class bookseller by ordering it. A reference to the London or English catalogues will tell him the editions and prices.

J. C. BODEN.—1. The stamps were Austrian and Danish. 2. The question was answered in No. 221. The weight of the earth in tons is estimated at £,426 and eighteen noughts after it.

A. SHORE.—The articles on "Fishing Tackle and how to make it" ran nearly all through the third volume.

J. W. CLARK.—We gave Kingsley's song of "Three Fishers went Sailing" in the March part for 1882. It can still be obtained at the published price.

ONE OF YOUR 1,000,000 CONSTANT READERS.—The "Daily News," "Daily Chronicle," "Pall Mall Gazette," and "Echo" are Liberal party papers; the "Standard," "Morning Post," "Morning Advertiser," "St James's Gazette," "Globe," and "Evening News" are Conservative party papers. The "Standard" is now perhaps the most liberal of the Conservative papers, the "Pall Mall Gazette" was the most conservative of the Liberals, but has lately grown more radical. The "Daily Telegraph" claims to be Liberal, but the leaders of the party do not seem to acknowledge it. The "Times" claims to be above party; it supports whatever may be the existing Government, and endeavours to represent—the nation.

MACFARLANE.—Macfarlane's work on the Highland Clans was published by Mr. Mitchell, of Bond Street, at eighteen guineas. McIan's work was published by Messrs. Ackerman, of Regent Street, at twenty pounds. Logan's "Scottish Gael" was published by MacKenzie, of Inverness. They are now out of print, so that you would probably have to give considerably more for them.

KOWARX.—For particulars of how to enter the Royal Naval Reserve apply at the Mercantile Marine Office near St. Katharine's Docks.

E. A. S. F.—The Institute of Civil Engineers is at 25, Great George Street, Westminster.

JUEZEI MUEZZY.—You should get the third volume. There was a series entitled "Balloons and how to make them," which began on page 70.

C. T. C.—We never under any circumstances answer correspondents through the post, and the fact of your sending us a stamped envelope gives you no right or preference over hundreds of others who do not send us stamps. Your answer was crowded out. It was simply to the effect that we never impart information on medical or surgical subjects. Consult a doctor.

T. W. PATTON.—All in good time. The subject of coins is so large that you must make up your mind which country or period you wish to study, and then we can probably give you the name of a handbook. One on English coins is now publishing in parts at 170, Strand.

F. H. ELSLEY.—A good manual on punctuation is published by Wyman and Sons, price two shillings. Its title is "Spelling and Punctuation."

AMICUS.—There is no liquid which will extract ink from sized paper without leaving a stain. As a good eraser you could not do better than use fine sand-paper. It is not advisable to scratch out entries in books of account. If a mistake has been made, out with it by a transfer entry or a red line. You may hide the error your way, you will never hide the fact that an error has been there.

R. B.—You might get a good telescope secondhand; but, as a rule, the so-called second-hand optical instruments have been failures at first-hand.

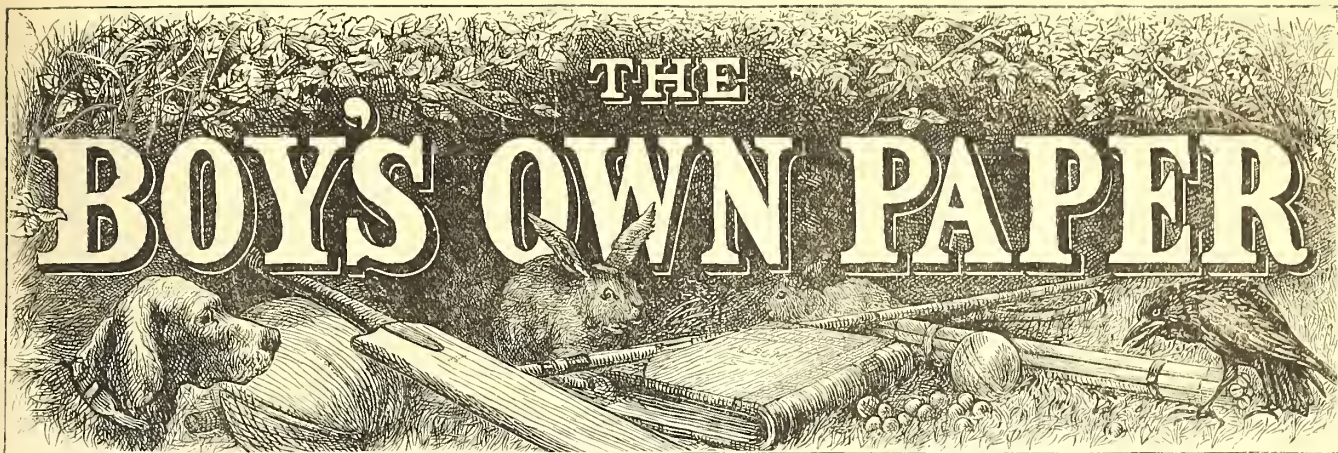
E. M. J.—To clean a felt hat from grease, take out the lining, and wash the hat in a hot solution of soda, or of sesqui-carbonate of ammonia.

A. W. DARTON.—The Aquarium articles were in the July and August parts for 1880. They began on page 611 of the second volume.

LOVETT.—1. Until he is of age; but the position of a lad who dawdles about at home when his father wishes him to go to work would, we should imagine, be so unpleasant that the lad would very soon tire of it. 2. Passports are certificates given by the representatives of the country that you are known to be a British subject and are travelling for the purposes specified. 3. Run errands; and the more he knows of figures and English the better.

E. S. ROBERTS.—A quarterly Navy List will give you the latest information. The lad must be under thirteen, and be nominated by a flag officer.





No. 306.—Vol. VII.

SATURDAY, NOVEMBER 22, 1884.

Price One Penny.
[ALL RIGHTS RESERVED.]

A RUSSIAN STORY.

By PROFESSOR J. F. HODGETTS,

Author of "Harold, the Boy-Earl," etc.

CHAPTER I. (*continued.*)

IT was late in the afternoon when the carriage arrived at Berozovo, and Tenterton was surprised to see no fences, no walls, nor any demarcations to show where the estate of Mr. Abrazoff began and where it ended. They drove at last between two upright stone pillars—or rather obelisks—much in decay, and overgrown with weeds and moss.

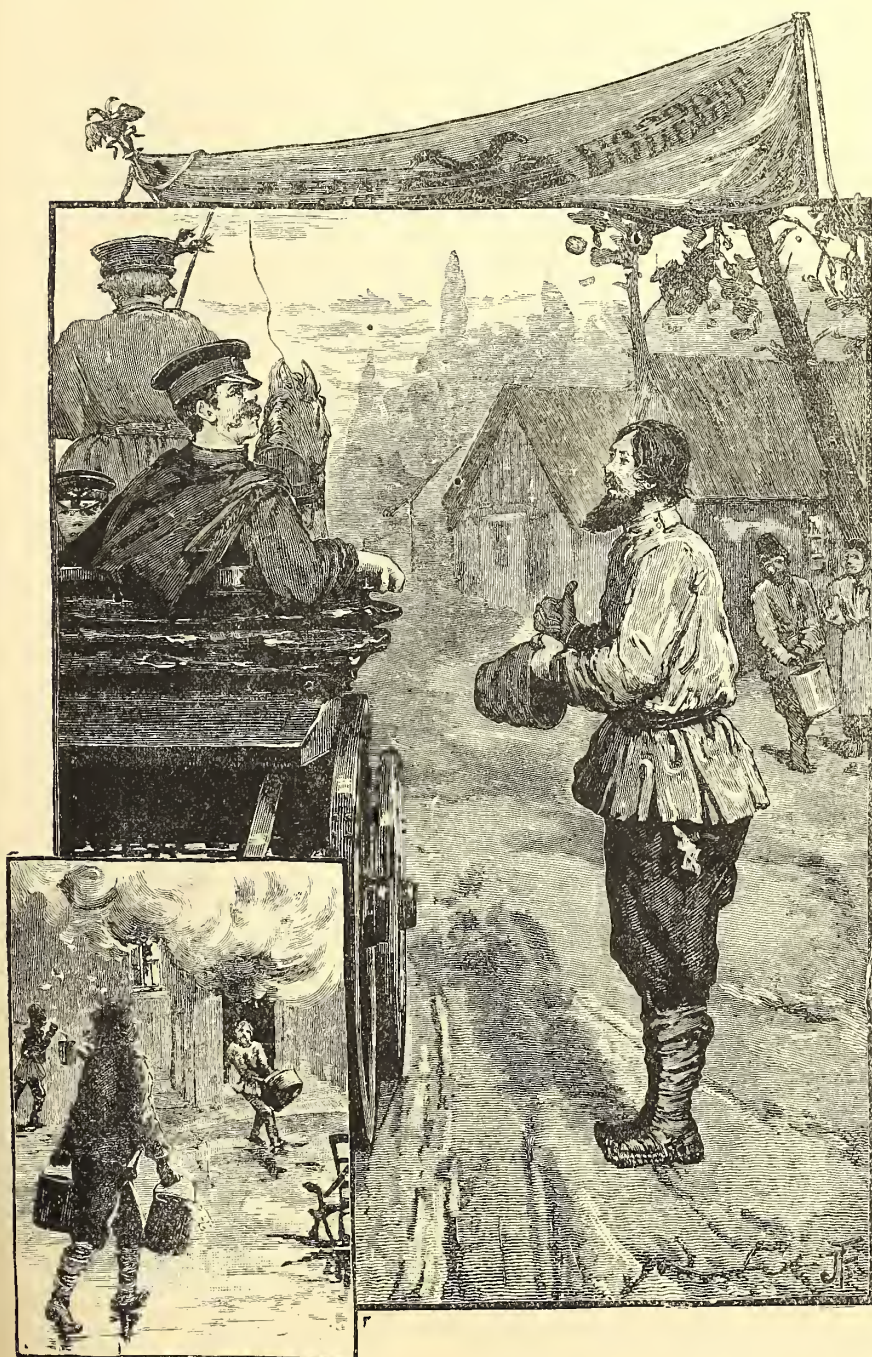
"There is the gate," said Paul Abrazoff.

"Where?" asked Edward, in surprise.

"Oh! there is nothing like what you would call a gate, you know; only those two obelisks mark the entrance to what may be called the 'Home Park.'"

Applying such a term to the wilderness around, from which the two obelisks made no severance of the portion which they were supposed to guard, seemed very ludicrous; but still Edward refrained from laughing, and was, in fact, all curiosity to know what was going to happen next in this queer place.

At last the carriage reached an odd sort of irregular building immediately *in front*—as Edward at first thought, though he afterwards found that it was *at the back*—of the great house itself, where he proposed to pass the rest of the



"A startling cry of 'Fire!'"

summer holidays teaching Paul English and reading our glorious classics with madame.

It was a long, low structure of wood, was the house itself, and the building before—or rather, behind it—was the stables. At each end of the house was a separate porch or entry, one being for the male inhabitants and friends of the master, and the other for the lady of the house, her friends and servants. Between the two doors were five tolerably high windows; above them and above the doors there was a number of small square ones, evidently giving light to very low rooms above. The other “front” of the house contained twelve large windows, the three centre ones opening on to a terrace, and being themselves arranged in a semicircle, formed something between a large bay-window and a summer-house.

As we have before observed, it was a “prasdnik,” or holiday. All the servants and their families, therefore, who inhabited the outhouses—which formed one side of the immense courtyard, of which the great house formed another—came thronging round the carriage.

“Welcome, Nicolai Alexandrovitch!” resounded in every possible key, from the child of four years of age to the old man of fourscore winters. The gay colours of the picturesque dresses of the peasant-women, and the holiday air of the whole scene, greatly impressed Tenterton, who thought to himself, “Abrazoff can't be such a bad fellow after all.”

At the top of the steps leading to the men's entrance stood Madame Abrazoff, to welcome her husband and his friends.

This was done in a very affecting and charming way. She first made the sign of the cross over his brow, then kissed him on the forehead and on each cheek, saying as she did so, “Slava Bogu” (Glory be to God). “I am so glad to see you safe!”

“Welcome to Berozovo, general. I trust you will make a long stay. Your old room is ready, and ‘Vasca’ is at your service to carry you whithersoever you like.”

“I hope he will not carry me far from Ekaterina Petrovna! I shall not like that, I assure you,” said the general, bending down with mediæval gallantry and raising the hand of the lady of the house to his lips, like a knight of the Middle Ages.

Indeed, the whole scene looked mediæval. The quaint court, the decaying walls of the stable, the number of retainers, their bright dresses—the unfamiliar appearance of everything, struck Edward Tenterton as though he had gone to sleep and had been rudely awakened three or four centuries or more ago.

After the welcome to her son—which was as solemn and touching as her reception of her husband, only perhaps a little warmer and not so formal—Madame Abrazoff turned to Edward, saying, “And this, I suppose, is Mr. Tenterton?”

“Beg pardon,” said Abrazoff; “I ought to have presented him before. My wife speaks a little English, Mr. Tenterton, and will be glad to improve her knowledge under your guidance.”

“Welcome to Berozovo,” said madame, in English, and without the trace of any foreign accent. “We shall do our best

to make you feel at home, though we cannot pretend to offer you English comfort.”

The party now entered a very large room, the side of which occupied the whole of the side of the house. Along the wall were seven large windows, and at the front end, and at the back end, were four windows respectively. It had two doors, one leading to the drawing-room, library, and boudoir of madame; and the other to the entrance-hall, where she received the party.

“Now take Mr. Tenterton upstairs to his rooms, and then come both of you down to dinner as soon as possible.”

Paul led the way up a rickety little flight of stairs to the floor which was lighted by the small windows we have noticed at the back of the house. They found a long corridor, with many doors in it, one of which Paul opened, exclaiming, “This is mine; yours is the next room to it.”

He then opened another door, disclosing a large, bare, melancholy room, with an old-fashioned German bedstead—something between a child's crib and a horse-trough. There were two windows, between which stood a very old, rickety writing-table. On the side of the room opposite to the bed was an ancient and very dirty sofa. Three chairs of a past generation completed the furniture. There was no carpet, no blind, no curtain. A door near the sofa revealed a small room—or rather closet—in which was a dirty table of plain deal wood, without any attempt at paint or decoration. On this stood a large brass basin for washing, and to a hook hung a clean towel. There was a huge press, or wardrobe, in this little room which occupied the greater part of the area.

A servant now appeared, who, assisted by a moujik, brought up Tenterton's portmanteau, which they placed before the writing-table and withdrew.

Tenterton flung off his jacket, and was proceeding to disrobe himself still further, when Paul looked in at the door to ask whether he had any soap. Visitors in Russia generally come supplied with this article. On hearing of this defect in the Englishman's outfit Paul disappeared, but soon returned, bidding Tenterton to “Look sharp, for the dinner-bell would sound presently,” and presented him with a cake of “Old Brown Windsor.”

Edward opened his portmanteau, which was of superior English make. The lower part contained his clothes—dress-coat, frock-coat, etc., etc.—while the top was filled with linen and lighter matters, among which were several packets of papers and documents, and many loose papers besides. These he carefully placed on the writing-table while he took out clean linen, for the dinner. He had just placed the last of these papers on the table when the dinner-bell rang!

“What shall I do now? I shall never be ready in time! How provoking!”

Here Paul knocked at the door.

“Come in, pray.”

“Are you not ready yet?”

“No; I haven't even got my dress-coat out, and the bell has just rung!”

“That's the first bell. Look sharp! We never dine in evening dress in Russia, especially in the country. Put on anything clean. You have washed your face and hands; that will do, only make haste!”

Tenterton obeyed. He put on the

“clean things,” then threw on a frock-coat, and had just buttoned it when the second bell sounded.

“What a bore! I can't leave these papers out, and there's no time to put them away.”

Here he observed that the old writing-table possessed a drawer. Quick as thought, he tugged at the handles, and pulled so hard that it came open, although it had evidently been locked before. Into this drawer he now swept all his valuable papers, never noticing that there were some in the drawer already.

“Now then, Mr. Tenterton!” cried Paul. “Look alive! The soup will be cold, and then I shall catch it for not being down in time.”

The papers being thrust into the drawer, and the frock-coat being buttoned in all haste, the two youths hastily descended the stairs, and found the assembled family taking zakouska.

Of course, an English reader wants to know what that is. In few words, it is a “whet” or sharpener to the appetite, and consists of various kinds of appetisers—as sardines, anchovies, pickled herrings (oh! how seductive they are in Russia!), cheese, and caviare. But this is not all. There are besides all sorts of liqueurs, from the common Russian vodka up to the finest and most delicate French intoxicants. These are all spread out on a side-table, and are partaken of standing before dinner.

Strange that the guardian-saint of the family should be made to watch over the poison of the nation! Yet so it is. Generally this table is placed in a corner, and over it, cutting off the corner, is the picture of the household deity—the saint upon whose day the father of the family was born—the saint who is supposed to intercede for him, and to obtain pardon for his sins of that Being whom the humble Russian thinks himself unworthy to approach!

Well, Tenterton and Paul reached the dining-hall just as the guests were sitting down, and Tenterton was amused to find that the ladies sat at one end of the table and the gentlemen at the other.

There was quite a party—as there always is in the houses of wealthy Russian proprietors. There were Madame Abrazoff, and three governesses for her daughter—a German *fräulein*, a French *mademoiselle*, and a Russian *gospojay*. There was a lady of the neighbourhood visiting; then there was Marie, the daughter of the family—a very sweet girl of some sixteen summers.

Tenterton sat next General Zakofsky, and he could not help remarking that his Excellency—every general is “your Excellency” in Russia—was very much pre-occupied, and answered at random to questions put to him. Thus, when a servant, handing him the soup, asked him which kind of pirog (little pies like sausage-rolls, only not a tenth part of the size) he would like with his setchee (cabbage soup), he replied, “Olga Ivanovna!” Whereat the man smiled, and said, “We have only egg and cabbage, but no Olga!” At which his Excellency frowned, and the frightened servant let fall sundry pies on the floor, which he picked up and quietly replaced.

The host was very pale and greatly agitated; irritated at trifles, absent in mind, dreamy, sometimes over-polite, sometimes downright rude.

"Nervous man, evidently," thought Tenterton. "I pity his wife!"

Glass after glass of costly wine did he swallow, and as the dinner progressed, and riabchicks (a sort of very plump partridge) were served, he drank freely, but still seemed unable to banish the annoyance which evidently oppressed him.

"Nice family!" thought Tenterton. "Head of it evidently a drunkard, or else he has something on his mind which he tries to drown. Well, it is not *my* business. The boy seems a decent fellow, mother very kind, and daughter charming. After all, things might be worse, and I hope I may be of use to the boy, that's all."

After dinner Paul and his mother invited Tenterton to take a stroll in the "ornamental part of the grounds," as they termed it. They took him quite round the house, and showed him how it was built of wood, like the huts of the peasants, only that the horizontal logs were defended from the action of the weather without by boards and planks nailed over them, while inside the same kind of boards were nailed over the logs to present a smooth, even wall-surface to the interior, which could be handsomely decorated and papered.

While they were examining the house in this critical manner, Abrazoff and the general approached.

"Are you teaching Mr. Tenterton how to build a Russian house, Katinka?" (A pet name for Ekaterina—Catherine.)

"I don't know myself, Kollie [short for Nicolai] how to do it; but I dare say the English understand building as well as we do."

"They don't use iron roofs," said Abrazoff; "we always do. See how pretty that roof of mine looks, painted as it is of so bright and fresh a green! There is nothing like it in England!"

"Wouldn't that house of yours burn down rapidly?" said Tenterton.

Abrazoff started. "Who told you it would burn?" he asked, with rude abruptness.

"Nobody told me; I can see it myself. The wood is old and dry, a spark would set the whole ablaze; and you Russians are always smoking, which, in such a house as this, I should think almost suicidal. Fancy such a house burning, and the great red-hot iron roof falling on the crushing embers! Horrible!"

Abrazoff had been about to interrupt this speech, but as the young Englishman continued he turned ghastly pale, and abruptly walked away.

The general gave Tenterton a look which the young man did not comprehend, although it was evidently meant to convey something. He then left him to the ladies and Paul.

Coffee—delicious *café noir*, without which a man has not dined in Russia—was served in the bay window of the drawing-room. Then there was a long chat about the state of the peasants, and about the good-fortune which Simeon Ilitch, the priest of Oزونovo, had recently enjoyed, having now a regular income, though nobody knew from what source; only whispers went that a little orphan boy whom he had taken care of had "brought him luck."

At this, too, Abrazoff seemed excited.

"Queer fish to let every little thing affect him," thought Tenterton; and he added, under his breath, "Is he cracked?"

"Oh, no!" exclaimed Madame Abrazoff, who had caught the remark; "the priests are often like that."

Tenterton did not ask, "Like what?" but as soon as tea was over retired to his room, and, without unpacking his trunk any further, undressed and went to bed.

He could not tell how long he had been asleep, when he was awoke by a terrible noise of crackling of timber, a fearful smell of burning wood, and a startling cry of "Posjarr! Posjarr!" ("Fire! Fire!")

Hurriedly he started from his bed. It was daylight, and as he threw on his clothes the hissing, roaring, cracking, and smell of burning wood increased every moment. He hastened to his portmanteau, which was still lying open, and, congratulating himself on not having unpacked it, thrust hastily such articles of linen and other matters as he had taken out all into the lower part, or bottom of the box.

Suddenly he remembered his papers! They were very important to him; so, hesitating but for a moment, he dashed at the drawer.

It was difficult to open it, as it fitted very tightly, and thus some valuable time was lost before he got it out. Then he turned the drawer upside down over the portmanteau to secure the safety of every scrap of paper, flung the drawer away, locked his portmanteau, strapped it securely, and dragged it to the door, when the intendant, or steward of the household, burst in with the words, "Posjarr! Posjarr! Save yourself!"

"Help me down with this *tehemodan*," said Tenterton.

The man only understood the word "*tehemodan*" (trunk), but that was enough. He good-naturedly caught hold of the portmanteau with one hand while Tenterton seized it with the other. In a few moments they were safe in the court, with the trunk between them.

The lurid glare from the burning house strove with the red beams of the summer dawn as to which should tinge the sky of the deeper hue. The cry was taken up by all the host of servants. "Posjarr!" resounded far and wide. It reached the village of Oزونovo, where again it was re-echoed by the peasantry, and the harsh, guttural tones of the word seemed to acquire fresh and more horrid meaning in repetition, as voice answered to voice, "Posjarr! Posjarr!"

(To be continued.)

THE STAR OF THE SOUTH:

A TALE OF THE DIAMOND FIELDS.

BY JULES VERNE,

Author of "The Boy Captain," "Godfrey Morgan," "The Cryptogram," etc.

CHAPTER VI.—IN CAMP.

THE subject of the conversation was not very agreeable to the young engineer. He scarcely liked to hear such imputations on the honour of the man whom he persisted in regarding as his future father-in-law. And so he came to consider Vandergaart's statements as merely the pleadings in his lawsuit, and therefore liable to considerable alteration when compared with those of the other side.

Watkins, to whom he one day spoke on the subject, burst into a shout of laughter, and as his only reply tapped his head with his finger, thereby intimating that Vandergaart was simply mad.

Was it not possible that the old man, under the excitement of the discovery of

the mine, had imagined that it was his property on insufficient evidence? The Court had evidently decided against him all through, and it would be very strange had they no cause for doing so. And so Cyprien continued his visits to Watkins Farm, although he knew what Vandergaart thought of its owner.

There was another man in the camp with whom Cyprien was on visiting terms. This was Mathys Pretorius, a name well known to all Griqualand miners.

Although only forty years old, Pretorius had for many years roamed about the great valley of the Orange before settling here. But this nomadic existence had not, as in Vandergaart's case,

had the effect of souring him. On the contrary, he had grown good-humoured, and so fat that he could scarcely walk. He was just like an elephant.

At home he was nearly always seated in a huge wooden chair, built specially to support his majestic form. Abroad he never went except in a carriage made of wickerwork, and drawn by a gigantic ostrich. The ease with which the bird drew the huge mass after him was a striking demonstration of his muscular power.

Mathys Pretorius always came to the camp to arrange about the sale of his vegetables. He was very popular, although his popularity, being due to his extreme cowardice, was scarcely an en-

viable one. The miners amused themselves by endeavouring to frighten him with all sorts of fantastic rumours.

One day they would tell him of an

above the camp, and consisted of alluvial land that might be diamantiferous, though nothing as yet had shown that it was so.



"On their way to the wash."

inroad of the Basutos or the Zulus; another they would pretend to read in a newspaper that an Act had been passed making it punishable for a man to weigh more than three hundred pounds; another they would declare that a mad dog had been reported on the Driesfontein road; and poor Pretorius, who was obliged to take that road home, would find a thousand excuses for remaining in camp.

But these imaginary alarms were nothing to his actual terror lest a diamond mine should be discovered on his estate. A horrible picture of the future presented itself to him—avaricious men invading his kitchen garden, upsetting his vegetable borders, and ending by turning him out and taking possession! For how could he help thinking that the fate of Jacobus Vandergraart would be his?

One of his most relentless persecutors was Annibale Pantalacci. This mischievous Italian—who seemed to prosper exceedingly, judging from his employing three Kaffirs on his claim, and sporting an enormous diamond on his shirt-front—had discovered the Boer's weakness, and at least once a week made it his business to go digging and pecking near Pretorius Farm. The farm lay along the left bank of the Vaal, about two miles

Pantalacci, entering thoroughly into the spirit of his cumbrous joke, would place himself full in view of the windows of the farm, often bringing with him a few companions to assist in the comedy. The portly farmer would be seen dodging behind his cotton curtains, anxiously following all their gestures, ready to rush to the stable, hitch on his ostrich, and be off at the first sign of their success.

Why had he been foolish enough to tell one of his friends that he kept his ostrich harnessed night and day, and his carriage packed with provisions, ready to start at the first unmistakable symptom of invasion?

"I shall go up amongst the Bushmen, to the north of the Limpopo," he said. "Ten years ago I traded ivory with them, and I would a hundred times rather do that than remain amongst such a lot of lions and jackals as we have here!"

And the confidant—as is the custom of confidants—immediately hastened to make the confidences public, and Pantalacci seized on the opportunity, to the great amusement of the miners.

Another constant victim of the same facetious individual was the Chinaman Li. Li had settled at Vandergraart Kopje, and opened a laundry. The mysterious red box contained nothing but

brushes, soda, soap, and washing-blue. Such was all that an intelligent Chinaman required to make his fortune with in this country.

Cyprien could hardly help laughing when he met the ever-silent and uncommunicative Li carrying a large basketful of dirty clothes on their way to the wash. But what angered him was that Pantalacci's persecution of the unfortunate Celestial was absolutely cruel. He threw bottles of ink among the linen, stretched cords across the doorway so that Li tumbled over them, stuck him to his seat by a knife in the tail of his blouse, etc. Whenever he got a chance he would give him a sly kick, and call him a "pagan bound," and this he did invariably when he paid his weekly bill. Never was his washing done as he wished, although Li got it up most marvellously. For the least false fold he would fly into a most frightful rage and thrash the unhappy Chinese as if he were his slave.

Such were the ordinary "amusements" of the camp. Occasionally, however, they partook of a more tragic character. If, for instance, it happened that a negro employed in one of the mines was accused of stealing a diamond, the whole population turned out to escort him to the magistrate, and urge him along with their clenched fists. But the crime of receiving was held in greater detestation than that of stealing.

Ward, the Yankee, who arrived in Griqualand at the same time as the young engineer, had some cruel experience of the consequence of buying diamonds from Kaffirs. By law, a Kaffir on the works is not allowed to possess diamonds, or to buy a claim, or work on his own account.

No sooner was it known what the Yankee had done than an excited crowd rushed to Ward's canteen, sacked it from top to bottom, set it on fire, and would have hanged the proprietor on the gallows that willing hands were preparing, had not a dozen of the mounted police opportunely arrived and marched him off to prison.

And such scenes of violence were frequent amongst this very mixed and half-savage population. Men of every race jostled each other in the incongruous crowd. The thirst for gold, the drunkenness, the torrid climate, the disappointments, and the dissipation combined to set their brains ablaze. Had all been lucky in their digging they would perhaps have been quieter and more patient. But for the one or two to whom the chance would come of finding a stone of great value there were hundreds who barely vegetated—who scarcely earned enough to keep themselves alive, even if they did not fall into absolute penury.

This Cyprien soon began to see, and he was asking himself if it were worth while or not to continue so unremunerative a trade when an opportunity offered for him to change his plan of operations.

One morning he found himself face to face with a dozen Kaffirs, who had arrived in camp in search of work. These men had come from the distant mountains that divide Kaffirland, properly so called, from the Basutos. For more than four hundred and fifty miles they had travelled in Indian file along the bank of the Orange, living on what they found on their way—roots, berries, and locusts. They were in a state of semi-starvation,

and looked more like skeletons than living beings. With their emaciated limbs, long naked bodies, parchment-like skins, bony sides, and hollow cheeks, they seemed more likely to devour a beef-steak of human flesh than to do a day's work. No one offered to engage them, and they remained squatted by the side of the road, helpless, gloomy, and brutalised by misery and want.

Cyprien was much affected at their appearance, and took pity on them. He motioned them to wait a little, and then went off to the hotel, where he ordered a large potful of boiled maize-flour and some tins of preserved meat to be sent out, and then returned to amuse himself at seeing them enjoy these unaccustomed luxuries.

One would have thought they were shipwrecked sailors rescued from a raft after a fortnight's fasting. They ate so much that for their health's sake they had to be stopped to prevent their suffocation. Only one—the youngest and best-looking of the group—showed any signs of self-restraint, and—what was a still rarer thing for a Kaffir—he even went so far as to thank his benefactor. He stepped up to Cyprien, seized his hand, and solemnly passed it over his woolly head.

"What is your name?" asked Cyprien.

The Kaffir, understanding a few words of English, replied, "Mataki."

Cyprien liked his straightforward look, and conceived the idea of engaging him to work on his claim.

"After all," he said to himself, "it is what everybody does in these parts. Better for the Kaffir that he should have me for his master instead of some Pantalacci." And so—"Well, Mataki, you are looking for work, are you?"

The Kaffir nodded.

"Will you work for me? I will board you, find you in tools, and give you a pound a month."

Such was the customary rate, and Cyprien knew that he could not offer more without raising the whole camp against him. But he intended to make up the very poor pay with gifts of clothes, cooking utensils, and other things.

As his only reply, Mataki smiled, showed his white teeth, and again laid his protector's hand on his head.

The contract was signed.

Cyprien took him to his tent and gave him a flannel shirt, a pair of cotton trousers, and an old hat. Mataki could hardly believe his eyes. To see himself thus splendidly arrayed as soon as he arrived in camp surpassed his dreams. He knew not how to express his gratitude or his joy. He jumped and capered and laughed and cried again and again.

At the end of a week Mataki had picked up so many words that he was able to make himself understood, and Cyprien learnt his history. He did not know the name of the country where he was born, but it was in the mountains, towards the sun-rising. All he could say about it was that he was very miserable, and, like many other warriors of his tribe, to make his fortune he had come to the Diamond Fields.

What did he hope to gain? A red cloak and ten times ten pieces of silver! For the Kaffirs hate gold pieces, their prejudice against them being due to their having been used by the first European traders.

And what did Mataki, the ambitious,

think of doing with these pieces of silver?

His intention was to get a red cloak, a gun, and ammunition, and then to return to his kraal. There he would buy a wife, who would work for him, take care of his cow, and cultivate his mealie-field. Then would he become a great chief. Every one would envy his gun and his good fortune, and he would die full of years and respected. Nothing could be simpler.

Cyprien remained deep in thought after hearing the simple programme. Could he change it; enlarge the poor savage's horizon, and show him a better object in life than a red cloak and a shot gun? Or should he leave him in his ignorance and let him return to his kraal in peace, and live the life he hoped for? A serious question, which the engineer dared not solve, but which Mataki did for himself.

For as soon as the Kaffir had picked up sufficient of the language to make himself understood, he betrayed an extraordinary thirst for information. His questions were incessant; he wished to know everything—the name of each object, its use, and its origin. Then he devoted himself to reading, writing, and to ciphering. In short, his thirst for knowledge was insatiable. And Cyprien encouraged him, and every evening gave

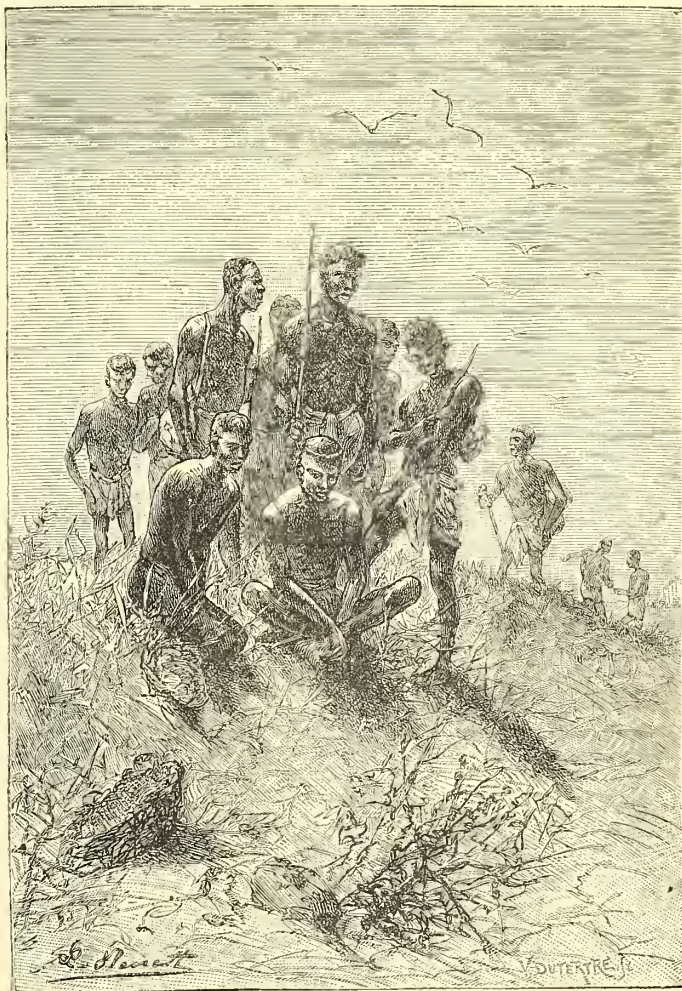
him lessons. And these the young Kaffir would repeat to himself as he worked at the bottom of the claim, dealing mighty strokes with the pickaxe below, drawing the buckets up above, or sorting out the pebbles at the sieves. So well did he work that his example was contagious, and the men on the neighbouring claims made far more progress than they had ever done before.

On Mataki's recommendation, Cyprien engaged another Kaffir of the same tribe, whose name was Bardik, and his zeal and intelligence were equally appreciated.

Soon after Bardik's engagement, Cyprien had his first good find, a seven-carat stone, which he at once sold to Nathan the broker for twenty pounds. This was promising, and a miner who was only on the look-out for reasonable wages would have been content—but Cyprien was not.

"If I stay here for two or three months at this rate," he said to himself, "shall I be any better off? It is not one seven-carat stone that I want, but a thousand or two, or else Miss Watkins will be handed over to James Hilton, or some other worthless fellow."

Thus thought Cyprien as he returned to the kopje one sultry, dusty day—the dust that reddish, blinding cloud that hangs like a pall over the site of a dia-



"Helpless, gloomy, and brutalised by misery and want."

him an hour's lesson to help him on the road he had chosen.

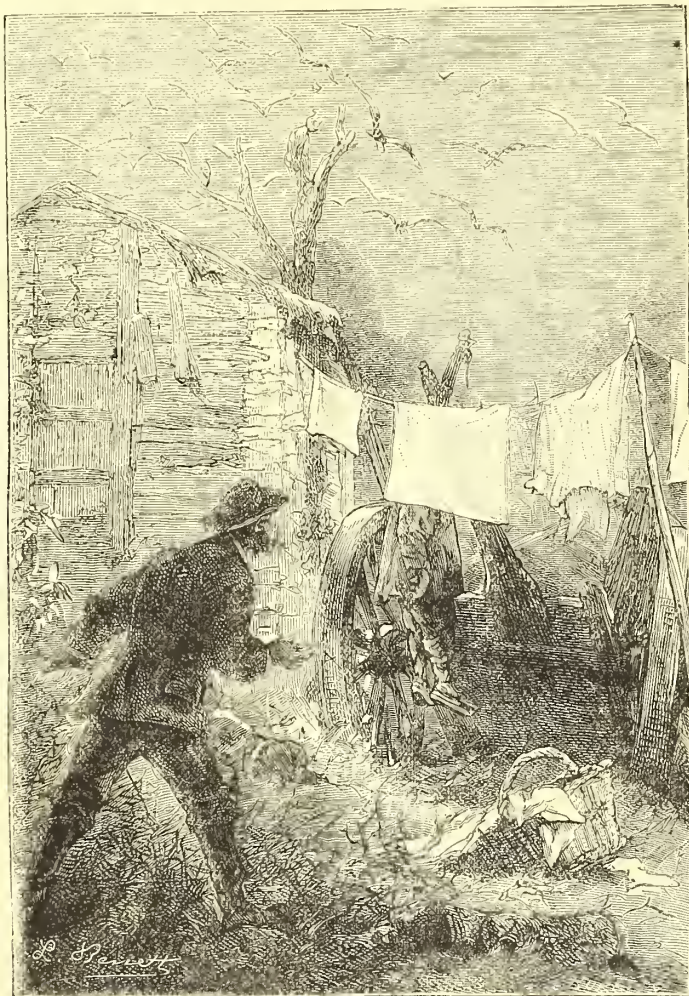
Miss Watkins was also interested in his unusual eagerness, and undertook to

mond mine. Suddenly he stopped and stepped back horror-struck at what he saw in the yard of one of the isolated huts.

A man was hanging from the pole of

an ox-cart, which had been drawn up by the wall. The body hung like a plummet against a background of snowy white linen—motionless, lifeless, with the feet

"You? You were committing suicide, then, you scoundrel! And why?"
 "Li was too warm! Li was tired of it!" replied the Celestial.



'A man was hanging from the pole of an ox-cart.'

stretched to the ground, and the arms dropped limply at its side.

Cyprien was for a moment aghast. But as he recognised the Chinaman Li, hanging by the pigtail, which had been hitched round his neck, his astonishment gave way to pity. He did not hesitate very long. He sprang to the pole, caught the body in his arms, and cut the tail with his pocket-knife. That done, he carefully laid his burden in the shadow of the hut.

It was time. Li was not quite cold. His heart beat feebly, but still it did beat. Soon he opened his eyes, and, strange to relate, seemed to come to his senses as soon as he saw the light. His impassible face betrayed neither fear nor astonishment at emerging from so horrible a trial. He seemed as though he had been awakened from some gentle sleep.

Cyprien made him drink a few drops of vinegar-and-water that he happened to have in his flask.

"Can you speak now?" asked he, mechanically, forgetting that Li could not understand him.

Li, however, gave an affirmative nod.

"Who hanged you, then?"

"I did," replied the Chinaman, as if he had said the most natural thing in the world.

And then he shut his eyes, as if to escape further questioning.

It now struck Cyprien for the first time that the Chinaman was not supposed to know the language.

"You speak English?" asked he.

"Yes," answered Li, lifting his eyelids, or rather the two oblique button-holes alongside his nose.

The look he gave reminded Cyprien of that ironical glance which had surprised him on the coach to Kimberley.

"Your reasons are absurd!" he said, severely. "People do not commit suicide because the weather is too hot! Speak seriously. There is something in all this, I know. Has that Pantalacci being doing anything to you?"

The Chinaman bowed his head.

"He threatened to cut off my pigtail," said he, in a low voice, "and I am sure that he would have done so in an hour or two."

At the same moment Li perceived the very pigtail in Cyprien's hand, and saw that the misfortune he dreaded above all things had come to pass.

"Oh! sir! what! you! 'You cut it!'" he screamed in terror.

"It was necessary to do so to prevent your being strangled," said Cyprien; "but it is of no consequence to you in this place. Be calm!"

The Chinaman seemed so broken-hearted at the amputation that Cyprien, fearing he might make another attempt on his life, took him along with him.

Li followed without a word, sat down near his rescuer, listened to his reprimands, promised never to renew the attempt, and, under the influence of a cup of hot tea, even favoured him with some scraps of his biography.

He was a native of Canton, and had been brought up in an English commercial house. From Canton he had gone to Ceylon, thence to Australia, and thence to South Africa. Fortune had never smiled on him. The laundry trade had been as unprofitable as the twenty other trades he had tried his hands at. But Pantalacci had simply rendered his life insupportable, and to escape his persecution he had made up his mind to hang himself.

Cyprien comforted the poor fellow, promised to protect him against the Neapolitan, gave him all the dirty clothes to wash that he could find, and sent him away contented at the loss of his capillary appendage, and free from superstition regarding the consequences.

(To be continued.)

ARMOUR IN HISTORY AND ROMANCE.



CHAPTER VII.

THE art of using acids to corrode steel and leave designs in relief, and of inlaying the bitten-out parts with enamel or precious metal, was in Henry VII.'s time much in vogue. Many examples exist. In the Tower of London we have the suit of armour presented to Henry VIII. by the Emperor Maximilian as a wedding present on his marriage with Katharine of Aragon. The badges are engraved on the suit, with the initials of the bride and bridegroom united by a true lover's knot. The suit is elaborately ornamented with pictures from the lives of the saints. A novelty in this armour is the introduction of the "Lampboys," an imitation in steel of the skirts of a coat.

Louis van Leyden practised etching in 1509, having learned the art from a maker of armour who was accustomed to execute ornamental work on the metal with nitric acid. The Asiatic art of inlaying weapons with gold was introduced about the same time, and used with great effect by the celebrated Benvenuto Cellini. Sword-blades so adorned were called in the French language "damasquinée," from the practice having originated

at Damascus. Our engraving (Fig. 39) is copied from the etching by Albrecht Dürer, known as "The Knight, the Devil, and Death." The knight is depicted in a very

These were metal plates that covered the upper part of the arms, chest, and shoulders. The older fashion of a salient ridge or tapul in front of the breastplate reappeared, but the



Fig. 39.

rich suit of fluted armour. The sallet has the visor raised. It is of sharp volant form, but in Queen Elizabeth's time it became more obtuse. The pauldrons have raised guards to protect the throat; the breastplate takes the globular form, and has a lance-rest "or queue" attached. On the right side, joined to the waist, is the lampoy, or coat-tail of steel, which in this illustration is not so voluminous as that in the suit of Henry VIII. The toes of the sollerets are at this

greatest protuberance was placed lower down, as if to imitate or cover the Punch-like peascod doublet worn at the time.

As the skill of the armourer developed, the knight was made almost impregnable in a casemate of steel, thus justifying James I.'s remark, that armour was an admirable invention which preserved a man from being injured and made him incapable of injuring any one else. A good idea of the strength of tilting armour in the sixteenth century can be gathered from the suit of Charles Brandon, Duke of Suffolk, of the date 1520, now in the Tower of London. The volant piece in front of the helmet has a curious additional contrivance of grated and guarded apertures. The breastplate is strengthened by the grand guard, and the left arm carries a large elbow-plate to act as a shield. The brassards are splinted at the inner bend of the arm, and below them is a long gauntlet. The sollerets are articulated. The suit weighs a hundred pounds, and in addition to this the poor horse had to bear a saddle-guard as well as the armour for his head called the chanfron, and that for his neck called the manefare.

A knight unhorsed must have been as helpless as a turtle on its back, for he was quite unable to rise or free himself from his armour without assistance. Philip de Comines writes that after a battle, at which he himself was present, "the camp-followers and servants flocked about the men-of-arms who had been overthrown, and slew most of them with the hatchets they used to cut wood; with which weapons they brake the vizards of their head-pieces and elave their heads."

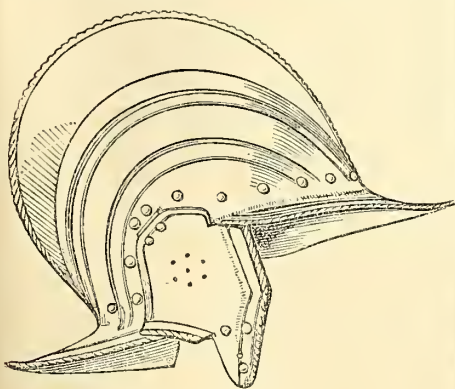


Fig. 41.

period no longer "pointed," but are almost square. The illustration is useful as it bears its date, 1513.

About this time the roundels protecting the armpits, as shown in Figs. 28—38, had disappeared, and pauldrons were substituted.

Our illustration on page 109 (Fig. 40) is a full suit of armour of the time, which will serve to explain some of the recent terms we have been using. The application of gunpowder to small arms necessitated a helmet that was free for the sight, and consequently we have the casque and the morion. The casque we illustrate (Fig. 41). It was used by the arquebusiers in 1560, and a buffe or chin-piece was strapped in front when occasion required. We also have shown two morions. Fig. 42 is the cabasset or peaked morion (1555—1575), our example being from a richly-engraved specimen in the British Museum. In Fig. 43 we have a three-corded comb specimen, with a fleur-de-lis and scroll pattern in repoussé work.

In the same collection is a specimen of the spider-cap (Fig. 44) said to have been used in a horse regiment formed by Henri Quatre. When not in action the bars could be turned over and the ends fitted under the disk at the top.

Gunpowder caused armour to be a mere encumbrance. In the reigns of Elizabeth and James I. it was probably little used in warfare, but the fashion was retained as the costume and insignia of a soldier and a gentleman. It was also used as such for monumental effigies. In the reign of Queen Elizabeth suits of armour were simplified. The ordinary breastplates were made much thicker in order to be bullet-proof, and projected downwards in conformity with the eccentric shape of the Punch-like waistcoat or peascod doublet of the time. The faces were made of one plate each, but were marked in imitation of many. At the close of James I.'s reign armour terminated at the knees. At this period gentlemen wore corselets. By permission we engrave (Fig. 45) a



Fig. 45.

portrait of Colonel George Goring, which shows the custom of wearing a handsome corselet with full dress.

Our next illustration is that of a pikeman in the part armour of the latter half of the sixteenth century (Fig. 46). A statute of Charles II. directed that pikemen were to be armed with a pike made of ash, not under sixteen feet in length, and also a back and breast piece, a head-piece, or pot-cap, and a sword. According to Planché, the pike was introduced into France by the Swiss in the time of Louis XI.,

and soon became an infantry weapon throughout Europe. Pikemen formed a principal part of the English army from the reign of Henry VII. to that of William III.

the limits of Westminster Hall by two trumpeters with the arms of the champion on their banners, by the sergeant-trumpeter, and by two sergeants-at-arms

herald attending the champion in the following terms:—

"If any person, of what degree soever,



Suit of Charles Brandon, Duke of Suffolk.

Taces were then abandoned, and the remains of armour retained in our army were the helmet and corset of our horse soldiers and the epaulettes on the shoulders of men of rank in the army and navy. A curious remnant of chivalry was displayed at the coronation of King George IV. It transpired that the manor of Scrivelsby, in Lincolnshire, belonging to the Dymokes, was formerly held on the tenure of attending each monarch on horseback at his coronation, and challenging all comers as the King's champion. The holder of the manor at this time was a clergyman, who, being in holy orders, could not appear as a warlike knight. He applied, however, to the authorities for permission to allow his son, who was under age, to act as champion. This after some demur was allowed, and the ceremony took place in the following order:—Mr. Dymoke, accompanied on the right by the Duke of Wellington and on the left by Lord Howard of Effingham, rode habited in polished steel armour, with plumes on his armet, and his horse also armoured with testiere and chanfron for the head and jaws. He was ushered first within

with maces. An esquire in half-armour was on each side, the one bearing the champion's lance and the other his shield. The three horsemen were followed by grooms and pages. The first challenge was given at the entrance of the hall, the trumpets having sounded thrice. It was read by the

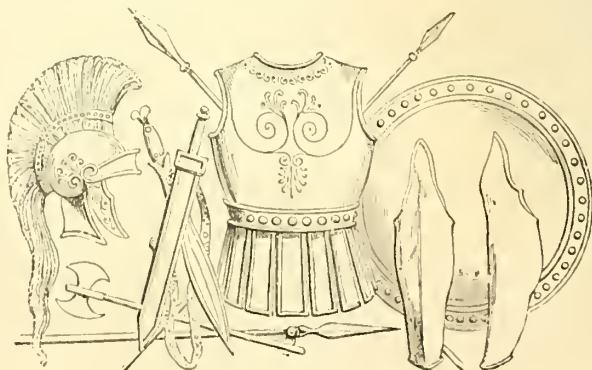


Fig. 46.

high or low, shall deny or gainsay our Sovereign Lord King George the Fourth, of the United Kingdom of Great Britain and Ireland, Defender of the Faith, son and next heir to our Sovereign Lord King George the Third, the last King, deceased, to be right heir to the Imperial Crown of this United Kingdom, or that he ought not to enjoy the same, here is his champion, who saith that he lieth and is a false traitor; being ready in person to combat with him, and on this quarrel will adventure his life against him on what day soever shall be appointed."

After pausing a few seconds the champion drew off his gauntlet and threw it upon the floor. This challenge was repeated halfway up the hall, the gauntlet each time being restored by the herald to the challenger amid applause and vociferations of, "Long live the King!" The family of the Dymokes is now extinct. The ceremony did not take place at the coronation of our present Queen, but she wore a pair of silken gauntlets, embroidered with the Duke of Norfolk's cognizance, presented by him as holding the post of Earl Marshal.

(THE END)



SCHOOL AND THE WORLD:

A STORY OF SCHOOL AND CITY LIFE

BY PAUL BLAKE,

Author of "The Two Chums," "The New Boy," etc.

CHAPTER XI.

FEATHERSTONE and Tommy had been on very good terms lately, thanks to the incident which had occurred in the gymnasium. But then Featherstone was on good terms with everybody in the lower school, so Tommy still lacked a chum. It was scarcely to be expected that a boy who was so popular as Featherstone should take any special trouble to make friends with a fellow who had never done him any good turn in particular, and whose friendship would bring no very great *kudos* on its possessor.

However, an episode occurred one day which rather changed the face of affairs, and made Soady easy in his mind as to Tommy's having a friend when he had left St. Mary's. It was in this wise.

Tommy was a careless boy; his books were being constantly mislaid, and had it not been for Soady's kindness he would have been continually floored for not knowing his lessons, owing to a lack of material to work upon.

There were certain books which Soady could not supply, as he used

different ones. Amongst these was a History of England, smaller and more elementary than that used in the upper forms.

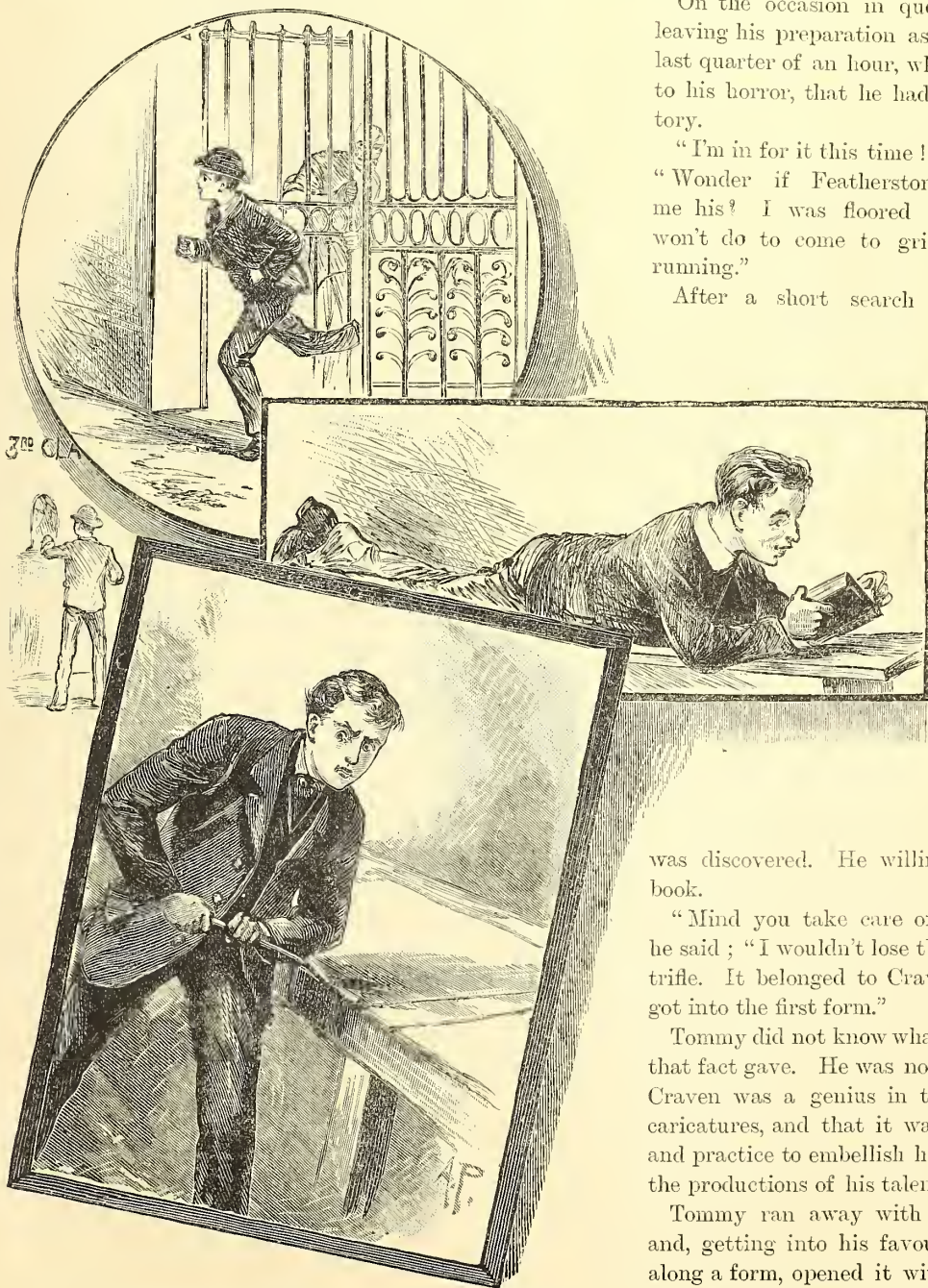
Tommy was weak in history, and wished that England had always been a

republic, so that he might have been spared learning the kings, with their extremely desultory dates. He disliked the whole subject, and used to cram his lesson just before going in and trust to luck, which sometimes favoured him and sometimes did not.

On the occasion in question he was leaving his preparation as usual to the last quarter of an hour, when he found, to his horror, that he had lost his History.

"I'm in for it this time!" he thought. "Wonder if Featherstone will lend me his? I was floored yesterday; it won't do to come to grief two days running."

After a short search Featherstone



was discovered. He willingly lent his book.

"Mind you take care of it, Tommy," he said; "I wouldn't lose that book for a trifle. It belonged to Craven before he got into the first form."

Tommy did not know what added value that fact gave. He was not aware that Craven was a genius in the matter of caricatures, and that it was his delight and practice to embellish his books with the productions of his talent.

Tommy ran away with his History, and, getting into his favourite position along a form, opened it with the intention of devoting his attention to the

"He wrenched up the lid desperately with a chisel."

deeds of Richard I. But the first glance made him oblivious of his lesson. The volume was illustrated under the direction of the author (Dr. William Smith), but its former possessor appeared to think that the engravings could be improved upon. Beardless monarchs were made to resemble the Emperor Napoleon; pipes were inserted in the mouths of grave senators; the vessels were peopled with most ridiculously incongruous sailors—Craven's pencil and pen had run riot in every direction. Tommy revelled in the fun, and utterly forgot everything in the excitement of turning over the leaves in search of new treasures.

Then he came across a page on which was written, "Which would you prefer—to be a greater fool than you look, or look a greater fool than you are? For answer, see page 102." This time-worn riddle was new to Tommy, who eagerly turned to page 102. There he was directed to "see page 14;" on page 14 there was a further direction to 95, and so on for about half a dozen references. Tommy patiently turned them all up, finding his reward at last on page 17, the words, "Both are impossible!"

This was a sell; the book was full of them. Sometimes there was a footnote to a statement to the effect that the author must be mistaken; dates were altered to others more fitting Craven's ideas of chronology. The book was indeed a comic History of England, designed, as Craven had stated on the fly-leaf, "to gild the path of the wayfarer up Parnassus with pleasurable aids and ingeniously contrived obstructions, on an entirely new principle, which had not met with the approval of the heads of any of the colleges of the United Kingdom or elsewhere."

Tommy was still immersed in his treasure when the bell sounded. School-time, and he had not learnt a word! He ran to his place and fixed his earnest attention on the page, trying his best to engrave a few facts on his memory which might by some fortunate chance tide him over.

Of course, Mr. Pickering was more punctual than ever, and the sharp way in which he cried, "Shut books!" left no alternative. Tommy gave a last glance, and fixed in his mind the name of the immediate predecessor of the monarch under consideration—Richard Cœur de Lion.

"Got my book all right?" whispered Featherstone.

"Yes. What a topper it is!"

"Rather! I'll show it to you after school—some things you wouldn't see unless I pointed them out."

Tommy was successful in concealing his ignorance during the early part of the lesson, but the questions came rapidly at the close, and he feared a catastrophe. When, however, the point he was requested to settle was the name of Richard's predecessor his relief knew no bounds; he was safe for the day, for there was no likelihood of another round.

"Name of Richard's predecessor? You, Scott."

"Henry the Third, sir," replied Tommy, confidently.

"Wrong; don't you even know the order of the kings yet?" asked Mr. Pickering, sharply.

"It's Henry the Third, sir, I'm sure,"

said Tommy. He was certain, quite certain of it—it was the very last thing he glanced at as he closed his book.

"What do you mean by contradicting me, sir?" exclaimed the master. "Take care!"

But Tommy, to every one's surprise, persisted.

"It's Henry the Third in my book, sir, I'm certain."

Had he seen Featherstone's eye he would never have said it. It was too late now.

"Let me see your book," said Mr. Pickering.

Tommy became instantly conscious of what a mistake he had made. He hesitated.

"Your book, sir!"

There was no help for it; he handed it up. Mr. Pickering opened it, and looked annoyed, turned over a few leaves, and his face did not look any pleasanter. However, he found the page required, and there, surely enough, was Henry III. preceding Richard I.

Mr. Pickering held it up to the light. The explanation was simple then. Some one had deftly altered Henry II. to Henry III. by the addition of a stroke.

"Scott," said Mr. Pickering, "I don't know where you managed to pick up this History, but I don't think it advisable for you to continue studying from it. You will bring a new one into class to-morrow, one that is not so embellished as this one, and that is more reliable. The cost is three-and-sixpence, which I will regard in the light of a fine for disfiguring your books. If I see this one again I shall put it behind the fire."

He handed the volume back, to Tommy's relief. An hour later school was dismissed. Featherstone took the earliest opportunity of getting to Tommy's side.

"Tommy, you're a brick!" he said; "if Pickering knew that was mine he'd have torn it up; he let you down easy because you were a new boy."

"Three-and-six!" remarked Tommy, dolefully.

"Never mind, I'll stand half-a-crown of it."

"No, you shan't; 'twas all my fault."

"No, it wasn't; I ought to have told you that that fellow Craven altered it all through. I was afraid you were going to say it wasn't yours, and then I should have lost it. But you didn't own up, and I'll stick to you."

Tommy was gratified beyond measure; he liked Featherstone, and was flattered to find his pluck in holding his tongue had met with such recognition. Three-and-sixpence, though it was a large sum, was well spent in winning a friend.

But fortunately the three-and-sixpence was not required. The lost history book turned up the next morning in the Rumage-room, where Tommy had deposited it whilst on a visit to his hamper, and then forgotten all about it.

CHAPTER XII.

WEDNESDAY came, and Melhuish was no nearer getting the money he required. The terrible feeling of dependency which had taken possession of him had prevented his feeling any

interest in work or play; the result was that he had incurred the Doctor's severe displeasure in class, and had had a slight quarrel with Lang.

Garland, with whom he had never been on terms of the slightest intimacy, was the only one now who seemed inclined to take any notice of him. But Melhuish had repulsed his overtures surlily, and Garland ceased to trouble him. Melhuish, however, repented his folly, for possibly Garland might have some money to lend. However, he found out that he had very little, so he took no steps to try and borrow it. A little money was no good; he must have several pounds.

There was only one course open to him now—to run away. He made up his mind to this, and, having done so, felt more at ease. He found out the times of the trains, and decided to catch one which left St. Mary's for London at 5.10. Tea was at six, so till then no one would want to know where he was, and by that time he would be out of reach.

What he should do when he reached London he had not settled. He had a vague idea of going to America. But all that he must leave. At present the one thing necessary was to get away from St. Mary's.

He had exactly half a sovereign of his own, more than enough to pay the fare to London. But he must get some more money. He knew how to manage that.

Ferguson was the football treasurer, and kept the cash in his desk, which he was always careful to lock. A very methodical fellow was Ferguson; there was no chance of his leaving his desk open by mistake.

Melhuish resolved to take a pound or two from the football fund. He believed he could force the desk open. Of course the robbery would be found out in the evening, but that wouldn't matter to him; he would be out of reach.

By watching his opportunity after school he could find the first-form room empty and open the desk undisturbed. Then he could slip away to the station in safety, getting out a little before the gates were shut, which was done at five punctually by the house porter.

But after school the boys did not seem in a hurry to leave the room. Garland hung about reading, and Ferguson kept dropping in and out. Melhuish began to grow anxious. Unless they speedily took their departure he would not have time to do what he wished and yet catch the 5.10 train. He was in a fever of anxiety, but at last Garland shut up his book and went out of the room.

Only Ferguson was left. At length he opened his desk, took out a fives ball, and departed. The instant he was gone Melhuish ran to the desk, wrenched up the lid desperately with a chisel he had procured, and opening one of the chamois leather bags in which Ferguson kept his cash, took out three sovereigns and a half-sovereign. As he did so he heard footsteps outside. He had just time to thrust the money in his pocket and shut the desk when Lang came in.

"Hullo, Melhuish, you all alone?"

"Yes," was the short reply. Lang supposed he was still forgetful of the quarrel of two days ago.

"Don't let me disturb you," said Lang, ironically.

A sudden thought struck Melhuish.

"Have you a couple of stamps you could let me have?" he asked.

This sounded like a step towards a reconciliation, which Lang rather wanted.

"I think I can manage it," he replied. "Here you are."

"Thanks. Can you change half-a-sov. ? I've no coppers."

"Oh, never mind ; any time will do."

"I rather want change if you have got it."

Lang cleared out his pockets and made it up, rather to his own surprise. Melhuish gave him half-a-sovereign, and then, with very short thanks, left the room. Only ten minutes to get to the station and take his ticket. He heard the clock striking five.

He jumped down the stairs and rushed across the quad. Old John, the porter, was just shutting the gates. No one was allowed to go out after five, though boys were permitted to come in till half-past.

"John, let me through! I must run down to town!" exclaimed Melhuish, hurriedly.

"Too late, sir ; the clock's struck."

"It's fast, John ; you know it is. Look here, John, you let me go ; I'll keep out of sight."

He thrust a shilling into the janitor's hand. Old John was not hard-hearted, so let him slip out. He was safe now ; he could do the half-mile to the station easily in seven minutes and leave a minute to take his ticket.

"How lucky," he thought, "to remember I hadn't a farthing change. If I hadn't got it from Lang I should never have managed to get out. Who could have calculated on drawing it so fine?"

He met no one on his way to the station. He fancied the booking-clerk looked curious when he asked for a ticket to London, but he did not say anything. The train was a few minutes late, which were spent anything but pleasantly by Melhuish. When it puffed into the station he took his seat in a deserted third-class compartment, and sank out of sight.

A couple of hours later he stood on the platform of Euston, in London. He had left school for the world.

(To be continued.)

GREAT SHIPWRECKS OF THE WORLD.

"CAST AWAY ON THE AUCKLAND ISLANDS."

THE Grafton, which sailed from Sydney on November 12th, 1863, was wrecked on January 3rd, 1864, on one of the islets of the Auckland Isles. The master and two of the crew arrived at Port Adventure last month in a small boat of their own building. Such is the official record of the wreck of the Grafton as appearing in Lloyd's list for October 17th, 1865.

Among the annals of the sea few more interesting stories exist than that of the loss of this ill-fated schooner. The captain's diary written up day by day in seal's blood during the twenty months' stay on the island, and published under the title we have chosen for our heading, is as enthralling as Robinson Crusoe. The plain straightforward narrative appeals so directly to the reader that, held as by the eye of the ancient mariner, he cannot escape. The quiet way in which Captain Musgrave sets to work to make his people comfortable under such untoward circumstances, teaching the men to read and write, and employing himself in surveying the harbours, and taking natural history notes, is something seldom met with in the history of shipwreck ; the tinkering, tailoring, cobbling ingenuity of the mate, working at his makeshift anvil from nine in the morning till long after midnight as he forms out of the old iron the bolts and nails necessary to fit the crazy dingy for her two hundred and forty miles' voyage across the stormy ocean, makes easy conquest of our sympathy and admiration ; while the curious fact of two shipwrecked crews being on the island at the same time unknown to each other renders the experience unique.

On New Year's Day, 1864, the schooner was caught in a violent gale off the Auckland Islands. Having in vain endeavoured to face it she was run for safety into Camley's Harbour in the large island. The wind shifted slightly so as to blow right into the harbour, and on the 2nd of January one of the anchor chains went, and the other anchor, the best bower, began to drag until it brought her up about a couple of cables' length from the shore. The gale increased very much, and the anchor began to drag again, every heave of the swell lifting the vessel nearer the shore ; and at midnight she struck.

The sea made clean breaches over her, the gale was terrific, the pieces of her keel came up under her lee and the water rushed in like a boiling spring. About two o'clock, when the water had risen to the top of the cabin table, the pumps were abandoned and provisions got on deck. When daylight came the dingy was launched, and, taking the mainsail and gaff with them to serve as a tent, the crew slipped ashore. There were only five in

all—the captain, the mate, and three seamen.

The storm continued for a week, and during that time the castaways lived under the tent and slept on the wet sand. But on the gale moderating a journey was made to the ship, which had not broken up, and sails and spars were brought ashore to make a house to spend the winter in. For the Auckland Islands at that time were uninhabited, and Musgrave expected to remain unrescued until the coming summer. Round the harbour grew plenty of timber, and there was a creek of excellent water. Of meat there was at that time no lack, for thousands of seals haunted the place, and at night could be heard roaring about the woods like wild cattle, the seal being much more noisy and spending much more time on the land than is usually supposed.

On the 19th of January, when an expedition was made down the harbour to plant the flagstaff and hoist the flag in signal of distress, hundreds of seals, black and tiger, were afloat on its waters, the black on one side, the tiger on the other, keeping well apart and ignoring each other except on one occasion when a regular dog-fight arose between a single representative of each species. Birds there were in plenty, green parrots—on one occasion a nest of green parrots was found, and the young ones reared—and robin redbreasts so tame that they came to be stroked, widegeons, and ducks, three different species of songsters, and hawks, five of which were shot to the great comfort of the other birds, who became even tamer after the death of their enemies, as if in recognition of the kindness that had been done for them. So, as in the case of Alexander Selkirk, there was little chance of food failing the castaways.

On the 24th of January some of the party set out to explore the mountain, and met with seal tracks four miles inland, while a seal itself was met with three miles away from the sea. From the summit of the hill a small harbour was descried away to the northward, but the steep granite precipices formed nearly the whole of the coast line. On the top the hills were covered with bog, but at their feet was the patchy bush of iron-bark and shea-oak.

A fortnight after this expedition, during a gale that arose suddenly, the boat got stove in. The men were in despair, but as soon as possible she was repaired and ways were laid down for beaching and launching her. Then, to avoid all risk of provisions becoming scarce, the party killed a supply of birds and seals and salted them ; and now work began in earnest on the house, with the only tools saved from the wreck—a hammer, an axe, an adze, and a gimlet.

The house was twenty-four feet long and sixteen wide. It was seven feet high at the walls, and fourteen at the ridge, and the corner spars were let a yard into the ground. The walls themselves were made of timber from the bush, let a foot into the ground, and having the spaces between each thoroughly thatched with bundles of grass. The floor was boarded with the ship's planks ; the door was an old one, the windows came from the cabin. The fireplace was of stone, and had walls a foot thick up to the roof, beyond which the chimney was continued in copper and zinc. Stretchers were built up inside for the men to sleep on, and there was a large dining-table seven feet by three with benches along the sides and a keg at the end for the chairman. At one end was the captain's table, with his writing-desk and chronometer ; at the other was the cook's table, with his tools and crockery. A few shelves and a looking-glass completed the furniture of the interior, and trenches all round two feet deep ran the water away from the exterior, and made everything dry and snug. In this house over eighteen months were spent, whose history was varied with the usual desert island incidents we so frequently meet with in romance.

A root was found which, on being tried, proved an excellent substitute for potatoes, and became included in the dietary. A new method of curing sealskins was invented. They were washed in strong lye made from ashes, scoured with sand, rolled tight, and beaten till they were soft enough to serve as blankets. One of the trees was found to yield a bark well adapted for tanning purposes, and in the tan made from it sea-lion skins were steeped, and gave the castaways excellent leather for their boots and clothes. Fish of all sorts began to come in to the harbour, a good haul was made, and a shoal of anchovies, accompanied by Australian mutton-birds, offered another variety in the food. In April a deserted camp was discovered on Figure of Eight Island, with the traces of a fire and an old file. A few days later dogs were seen in the bush, and afterwards were heard barking. The cliff at Flagstaff Point was painted white, and a blue N to direct the folks who saw it to steer to the north was added, and a bottle containing instructions was tied to the flagstaff. Many exploring expeditions took place among the chasms and precipices, and the Giants' Tomb, a ridge of rock 1,800 feet above the sea, with a cave at the top, was thoroughly overhauled.

In this way twelve months passed, and no rescue came, and then it was decided to build a cutter of about ten tons' measurement, and attempt to reach Stewart Island. The Grafton had been built of greenheart and



Cast away on the Auckland Islands.— See p. 123.

copy out of the timbers of an old Spanish man-of-war, so that the wood was hard and heavy and sorely trying to the tools. For the keel of the new ship the mainmast was used, and the blocks were laid down and timbers cut out.

The old ship had little copper in her; nearly all her fastenings were of iron, and Raynal, the mate, undertook to do the blacksmithing work, and out of these old iron bolts to produce the tools and spikes necessary for the new. For a time he succeeded. An iron block did for an anvil, and some of the bush was burnt underground for charcoal to serve as fuel.

The rusty old file found on Figure of Eight Island was ground down smooth, and fresh teeth were cut in it with the chisel, though unfortunately with almost the last cut it broke two inches off the tang. Shift was made with it, however, to cut teeth in a piece of sheet iron and form a saw. In a month keel, stem, and stern were ready for bolting, and Raynal had out of the old iron bolts and belaying-pins made the tools required. Chisels and gouges had been turned out to order, but now the great failure was to come. To bore the wood for the bolt-holes augers were necessary, and these he tried in vain to finish. He nearly succeeded each time, but at the last twist the ends snapped off. With a heavy heart he had to give in, and the building of the cutter had to be abandoned.

There remained the old clinker-built boat, twelve feet on the keel, in which they had made their exploring trips. It was resolved to patch her up, to lengthen her a yard, and raise her a foot, and make the dash for safety in her. The work was soon begun, and went on unceasingly from daylight till half-past nine at night, for to the boat they were to a certain extent indebted for their food, and while it was in hand they had to betake themselves to their salted provisions and vary their diet with the few birds that at that time were visiting them in the bay.

Soon after starting on the work the gimlet broke, and this was successfully mended by the mate, who worked so hard at his forge that before he had finished he had turned out one hundred and eighty clinch bolts and seven hundred nails and spikes, without counting the old stuff he had put straight. Now, however, there arose another difficulty. The planks of the old ship would not bend on to the boat, steam them as long and as thoroughly as they could; and so the neighbouring trees had to be cut down, and out of the shea-oak planks had to be got by means of Raynal's sheet-iron saw.

And all this time a constant record of the adventures and disappointments was kept by the captain—in seal's blood, for want of ink. And, in addition to the record, a long essay on the habits of the seal was drawn up, from which, as being the history of an animal written in its own blood, we must find room for an extract.

"It might be supposed," says Captain Musgrave in his journal, "that these animals, even when young, would readily go into the water, that being one of their natural instincts, but, strange to say, such is not the case; it is only with the greatest difficulty and a wonderful display of patience that the mother succeeds in getting her young in for the first time. I have known a ewe to be three days getting her calf down half a mile and into the water; and, what is most surprising of all, it cannot swim when it is in the water. This is the most amusing fact. The mother gets it on to her back and swims along very gently on the top of the water, but the poor little thing is bleating all the time, and continually falling from its slippery position, when it will splutter about in the water precisely like a little boy who gets beyond his depth and cannot swim. Then the mother gets underneath it, and it again gets on to her back. Thus they go on, the mother frequently giving an angry bellow, the young one constantly bleating

and crying, frequently falling off, spluttering, and getting on again; very often getting a slap from the dipper of the mother and sometimes a cruel bite. In this manner they go on until they have made their passage to whatever place she wishes to take the young one to, and here the young ones remain without going into the water again for perhaps a month, when they will begin to go in of their own accord; but at first they will only play about the edge, venturing farther by degrees, and until they are about three months old if surprised in the water they will immediately run on shore and hide themselves, but they always keep their heads out and their eyes fixed on the party that has surprised them, imploring mercy in their most eloquent language."

On Friday, June 23rd, 1865, the boat was ready, sails were bent, and all was complete. Four days afterwards she was launched—and proved so crank as to be dangerous. Her rig was altered from that of a cutter to that of a lugger with a jib; her ballast was rearranged, and then she did better—and all was ready to start. Starting, however, was no easy matter, for of the three men who, with the captain and the mate, formed the complement, two had to be left behind owing to the boat not being big enough to hold them. The men were afraid to go and afraid to stay, and would not let the captain leave. At last all difficulties were surmounted; a seaman named Harris and the cook, Folger, were left behind, and on the 19th of July the Rescue—such was the name of the boat—set sail in the first squall of a south-west gale, which came on in full force after they had been about twenty minutes at sea. For five days and nights—during the whole of which no one slept, and the pump had to be constantly kept going—those three men took their frail craft through the breaking waves.

At last they reached Port Adventure, in Stewart's Island, and thence five weeks afterwards Captain Musgrave returned to the Auckland in the Flying Scud in search of the two men he had left behind. As the cutter made her way down the coast a mysterious smoke was observed over the hills. The men were found, almost beside themselves with joy at being rescued. And then, as they knew nothing of the smoke, a search was made for its origin. The source of the smoke was not found, but in a bay to the northward of Camley's Harbour they came across an eloquent token of another wreck. A little way up from the beach was an old ruined hut that had fallen to pieces round the bedstead that had been built within it. On the bedstead, in the full light of the day, lay the dead body of a man dressed in oilskins and jersey. By his side were two bottles of water, one full, the other empty, and near him was a heap of limpet and mussel shells, showing what had been his food. There he lay, in the broad sunshine, with his legs across as he had died—starved to death! His flesh had gone in places, and the features were unrecognisable; but on the slate he held in his hand he had scrawled a few words, only one of which, "James," was now decipherable. Solemnly the Grafton men buried him close to the precipitous cliffs, in deep silence, broken only by the cry of the sea-birds as they swept round the bay and the beating of the waves as they foamed on to the rocks. Whence he had come was then a mystery to them, as it was obvious that the wreck from which he had been cast must have taken place while they were in comparative comfort at their hut. This mystery was never solved, but a short time after their return to New Zealand they learnt that on the 10th of May, 1864, during a storm duly chronicled in Captain Musgrave's seal's-blood journal, another wreck had occurred on the island—that of the Invercauld, from Melbourne to Callao. The Invercauld was a ship of over eight hundred tons burden, commanded by Captain Dalgarao.

Of the twenty-five persons on board when the clipper was suddenly driven among the breakers, two boys and four seamen were drowned. The night was intensely cold and dark, and the nineteen survivors had to creep together under the cliff to keep themselves warm, while the spray dashed over them. In the morning it was found that only two pounds of bisenit and three pounds of pork had been washed ashore from the wreck, and this was all the provisions they had amongst them.

The almost perpendicular cliffs were sealed in search of help; water and roots were found, and a journey was made through the scrub towards the highest point of the island. Nothing was seen, however, of the Grafton people, nor did the castaways in Camley's Harbour discover any trace of the Invercauld's, although, thanks to the steward having saved a box of matches, fire was not unknown to them. A return was then made to the beach, a hut was built of the timbers cast up by the sea, and a miserable life was led on seal flesh and limpets. The seal flesh soon gave out, the shell-fish on the rocks were all eaten, and one by one the men died. By the end of August, of the nineteen three only were left—the captain, the mate, and one seaman—and these moved off to the northward. In great misery they kept body and soul together until, twelve months and ten days after the wreck, they were picked up by a Portuguese vessel that had put into the bay in the hope of finding some one able to repair a leak. The captain with his two companions was taken on board the Julian and landed at Callao, to learn, a few months afterwards, that during the whole time he had been on the island the Graftons had lived on the other side of the ridge, and that while he was starving food existed in plenty in Camley's Harbour. Had he only led his crew to the southward instead of to the north all would have been well. "On what trifles hang the lives of men!" The dogs had been left behind by the old settlers before they deserted the island. Of the mysterious smoke no explanation has yet been given.

OUR NOTE BOOK.

A BRAVE STAND.

WE learn from the Continent, where the keeping of a Christian Sabbath is almost wholly disregarded, and where, therefore, it requires not a little moral courage to set oneself against the current, that the soldiers belonging to the Young Men's Christian Associations in the Val de Travers have formed amongst themselves a special rifle corps, whose exercises shall not take place on Sunday. The Council of State of Neuchâtel have granted their consent.

A VETERAN FRIGATE.

THE famous British frigate Shannon, which in 1813 fought the historical sea duel with the United States sloop-of-war Chesapeake, is still afloat. Long ago she was reconstructed for the merchant service, but her hull is substantially the same to-day as it was eighty-four years ago, the date of her birth, or her launching. Her last public service was the transporting of troops to and from India. Latterly she has been taking a cargo of chalk from England to New York. She is about 1,300 tons, and on her stern she displays what is said to be a capital likeness of Sir Philip Broke.

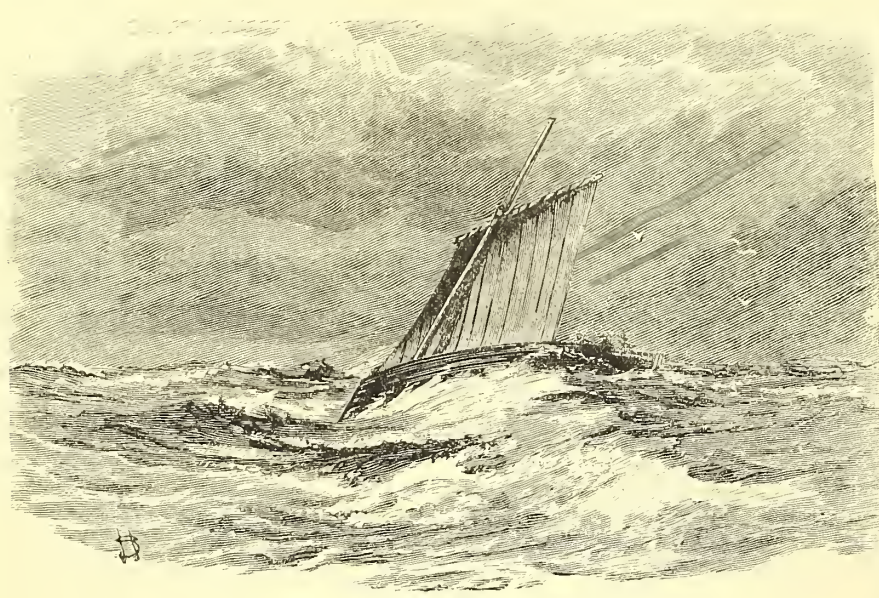
A HELPFUL THOUGHT.—"Is your God a great God or a little God?" mockingly asked an infidel of an old Christian woman. There was a pause, and then solemnly upraising her hand she replied, "My God is so great that heaven and earth cannot contain Him, and He is so small that He can dwell in this poor heart!"

CANOES, AND HOW TO BUILD THEM.

BY C. STANSFELD-HICKS,

Author of "Yacht and Canoe Building," etc.

CHAPTER III.—SAILING CANOES.



A Good Run.

THE Rob Roy was the first canoe of a safe and handy type, the canoes in existence before its appearance being generally exceedingly shallow and very dangerous, for although they were partly decked, they were left open amidships for the reception of the occupant, the fore part of the deck stopping short some nine or ten inches from his feet, and it was impossible to keep out the water if from any accident the gunwale of the canoe was forced under water. Such canoes are even now used in some places, and the general type of canoe let out for hire at most boat-houses is of this description, Rob Roys being in general only constructed for private owners.

Owing to the shortness of the Rob Roy type, which was requisite to give sufficient handiness, extreme speed could not be attained "under paddle," and to meet this want the Ringleader canoe was designed, of extreme length as compared to the Rob Roy.

For the purpose for which it was intended it answered very well, and was capable of being paddled at a great speed, but in the Rob Roy races, which are a compound of paddling, sailing, drawing the canoe over a certain length ashore, jumping over a ditch, and climbing over a hedge hauling it after, and sundry other evolutions, finishing up with an upset and a swim in clothes, towing the canoe, the Rob Roy type came off victorious, being possessed of more all-round qualities.

The Ringleader, which was built on the axiom that "length means speed," is not much seen now, and canoeists have as a rule gone in for craft that can carry canvas and go to windward under it; and in considering them we come to sailing canoes, such as the Nautilus, Pearl, and Mersey canoes. These canoes, which can be readily paddled on occasion (with the exception of the latter type), depend more on their sails than the paddle while there is any wind at all, as they can work to windward under sail faster than they can be paddled, which is not the case with the Rob Roy type, which is a sort of compromise, being neither a racing paddling canoe of the Ringleader type nor a

sailing canoe, but a canoe that can be easily paddled and carries sail on suitable occasions.

The great difference in the two forms of sailing is this: Supposing in a Rob Roy you have a fair wind, either a run or a ratch; well, all you have to do is to up sail and off you go merrily enough; but if the wind be dead against you, then perhaps with a specially good boat of the type you might draw a little to windward close-hauled, but it would not be much, and would be such slow work that you would soon find that if you wanted to progress against the wind you would have to donse sail and get up steam.

Now, in a sailing canoe all is quite different. She will outpace the Rob Roy off the wind at such a rate that in no time the travelling canoe will be where the little boat was, "a long way astern," and when close-hauled the Rob Roy would never see the way she was going, for the sailing canoe would, thanks to her centreboard, lie as close to the wind as a cutter, and with patent reefing-gear could snug down at a moment's notice so as not to care how many hands were at the bellows, and if blowing up a gale of wind a Mersey canoe with mizen set in place of the main or with other snug sail would go over the seas like a duck; but—and there is always a "but," for it is not easy to find perfection—you would not much like the job of using a sailing canoe for travelling, not only on water, but over hedges, on railways, and occasionally dragging it yourself overland from one piece of water to another.

No; the Rob Roy is best for what it has been designed for, and the sailing canoe for its purpose, and an intending builder must first know what he wants, and then set about getting those wants fulfilled in the most complete way in the craft he proposes to construct.

The great feature in all sailing canoes is the lateral resistance they offer in some form or another, and without which they could never haul on the wind to advantage. This is obtained in most cases by a centreboard or centreboards, but some racing (sailing) canoes have been designed with a deep fixed keel,

as we shall presently describe. The advantage of a centreboard is that the draught of water can be altered as required, whereas in the case of the fixed keel it remains the same. In the canoes with deep fixed keel, lead can be carried on the keel and they can be designed on the principle of a modern racing yacht, but it is not at all certain that this is an all-round advantage, as the principles involved in sailing yachts and canoes are not the same.

It is an undoubted advantage in a yacht that her ballast shall be mostly on the keel, and so arranged that the greater the angle of heel the greater the righting power becomes. Such a craft, as long as the water can be kept from below—which can be done in a decked craft by closing the hatches—is practically unsinkable, as she cannot capsize—and the knowledge of this is extremely comfortable when pressing a craft in racing. She may careen till her lee-rail and several of her deck planks are under water, but her crew know that unless her lead keel drops off she is as safe as a house. But in a centreboard boat this is not the case. She generally depends on her beam for stability, and, up to a certain point, is safe enough, but there is a point at which she is unsafe and will capsize, and though some people who are fond of risking their lives may like to carry on in such boats, there is always an element of uncertainty and danger, which to most is decidedly unpleasant.

Now, in a canoe her displacement is too small, in proportion to the size and weight of her gear and occupant, to allow of as proportionately good results being obtained by outside ballast as in the yacht. It is found by practical experience on the part of canoe racing men that the alteration of the position of the occupant gives greater proportionate results than the amount of outside ballast suitable for her to carry, and that ballast sufficient to be equivalent to the shifting ballast obtained by the occupant trimming the canoe by the alteration of his position would tend to make a canoe unwieldy for many purposes. Of course, in a racing yacht, however small, the same effect cannot be obtained by shifting the position of the crew.

In diagrams Nos. 1 and 2 you will see that the occupant, having a certain weight, must be taken as an integral part of the canoe, and in calculating her centre of gravity this will entirely depend on the position of the person in her. For instance, if he inclined past A, the centre of gravity would be so altered that the canoe would immediately upset. At A, in a line with the keel and centreboard, he would probably upset, but at C the range of stability would be great, and increasing at every inclination of the occupant to windward in the direction of D. The canoe is kept in the position indicated by the pressure of wind on the sails. The sails and spars in themselves have a certain weight which must not be forgotten; the direction of that weight may be taken from O in a plumb-line. To allow the occupant to shift well out to windward, the side-flaps of the well are hinged, so as to throw back, as at E. In a racing canoe shifting ballast is used as well, which would be stowed somewhere at B. Of course, as the boat was put on the other tack the ballast would have to be shifted over, and the occupant's position must also be altered to the best advantage.

In American racing boats—I allude to the smaller class of open boats—this principle is carried out to a far greater extent. As many "crew" as possible are carried, who simply

act as live ballast, with the exception of the helmsman. On a tack, the "crew" range themselves along the weather gunwale, holding on to a life-line, and leaning out over the gunwale as far as they possibly can. At the same time all the ballast is shifted up to windward. These boats carry an enormous amount of sail, which they could not stand up to for a moment if ballasted in the ordinary way, and the labour involved is excessive when tacking, as in the shortest possible space of time the ballast—no light weight—must be shifted over, and the crew resume their position on what is now the weather gunwale. Hardly a race occurs without one of these craft capsizing, and more generally three or four are upset. They seldom or never sink, as the ballast falls out, and the crew hang on coolly—especially if the water is not particularly warm—until taken off by another boat!

This wretched system of shifting ballast was in vogue over here in the old days of yacht-racing, and the consequence was that the boats of that day were good for nothing else but racing, having neither accommodation nor being good sea boats. This has now been

every puff, and doing so at once, and being equally ready, if the canoe is taken aback, to shift the other way—keeping, in fact, the balance as well as the rider of a bicycle has to, and by practice keeping it, as a good bicyclist will do, almost unconsciously. Then your hands, representing the crew, always ready to pull and haul, to manage the several sheets, to reduce sail instantly if necessary, or to make it again as quickly, and the head, as the captain, guiding, deciding, and taking into consideration all contingencies—not an easy task. And before attempting it, you will do well to get some of the books treating fully on the subject and giving practical directions by men who have found the way "how to do it" by building and sailing not one, but half a dozen canoes; each one carefully thought out, and each an improvement in some way—either form, sail plan, or gear—on the former. Such a book is Dixon Kemp's Boat-sailing: with Notes on Canoes by E. B. Tredwen, W. Baden Powell, etc.

Now as to the use of the centreboard. You have most of you seen a barge, have you not? Well, a barge, as you know, is very shallow, and having to make passages along the coast

easily improve her capabilities by making and fitting a couple of leeboards, but I must caution you both as to centreboards and leeboards that if they touch on a bank or bottom the boat will most probably turn over. This may be obviated by applying an india-rubber spring sufficiently strong to take the weight of lee or centreboard so that on touching, the board will rise at the slightest pressure, and fall again when the bank is passed. Off the wind such boats generally steer better with the boards either entirely or partly up—that is to say, when only one board is used. When two are employed, the forward one is raised in running when off the wind, the one aft assisting in keeping the boat running steadily.

We shall presently show a design of a canoe intended entirely for racing; she has, as you will then see, a considerable draft of water aft, and is thus able to do without the after centreboard. Some of the Mersey canoes have no centreboards, and sail well to windward; they have, however, a fixed keel some four inches deep, which affords sufficient lateral resistance. These canoes are very large, perhaps the largest of any class of canoe, and

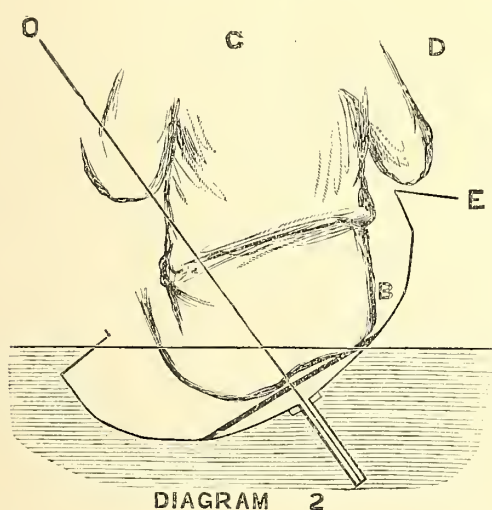


DIAGRAM 2

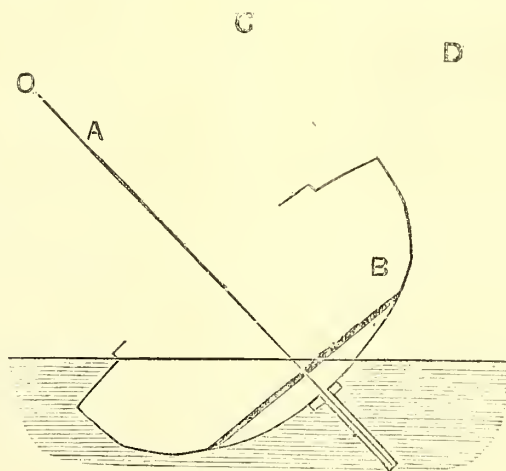


DIAGRAM 1

completely altered, and the smallest English racing yacht, well battened down, can make her passages round the coast in perfect safety.

It is this power of trimming the canoe by the disposition of the occupant that enables these craft to carry the enormous amount of canvas they are able to set, combined with the carefully-studied details which enable sail to be reduced in a few seconds. You will see by this that sailing-canoe racing is no easy matter, and it is evident that a man must be an adept and full of resources to succeed in it.

It will be quite sufficient to give you a general idea of the form and peculiarities of these canoes, as before you succeeded in making one you would have to be well up in construction; and not only in that, but would have to understand the principles that govern sailing boats, and the points to be attained, as well as those to be avoided; and then when the canoe was built you would have to find the best way to set a large amount of canvas in such a manner as to be able to reef down at a moment's notice, besides learning by practice how to do this effectively, as well as to keep the balance by the almost intuitive motion of your body while your hands are occupied by gear, and your head by the difficulty of sailing the canoe to the best advantage, taking advantage of every puff, avoiding any obstacle in the way, taking into consideration sets of tide and tricks of opponents. In fact, you would be divided something after this fashion: Your body, as ballast, shifting to

would only be able to sail with a fair wind unless for some contrivance to give her lateral resistance. I am speaking of sailing barges. Now, if you look carefully at a barge you will see two large boards something like fins in the shape of an isosceles triangle on either side of her. These boards are called leeboards, and are used as follows: When the wind is fair the barge hauls up the leeboards and runs on her course with the wind, but if the wind is against her she has to make tacks to windward to reach her destination. It is then that the lee boards are of use. Down they go (you will see they hang by the narrow part or apex on an iron pin or chain to the gunwales of the barge, the lower part of the leeboard, the base of the triangle), then fall below the level of the barge's bottom, and in proportion to the depth and breadth oppose a considerable resistance to the water and prevent leeway (at least the lee one does, the pressure of the water being on it, while the weather one hangs slack, but on the next tack the leeboard that was to weather becomes the acting one, the other being relieved for that tack from duty).

This is the principle of the centreboard, and is used by barges as it takes up no useful room, but leaves the hold intact for stowage. It, however, looks clumsy, and is exposed to the danger of being damaged, though such danger is less in a barge, which is heavily and strongly constructed, than in a small pleasure-boat, and so for these reasons leeboards are not used in such craft, but centreboards are substituted. If, however, you have a boat or canoe that will not go to windward, you can

are really small-decked boats, the well being so long that all the sails can easily be managed from it, and accommodating three persons. Instead of a paddle short sculls are used in iron or brass rowlocks. A Mersey canoe is about seventeen feet long, with four or five feet beam, but does not carry as much sail in proportion as the smaller craft of the Pearl and Nautilus type.

The question of sails and gear is one of great importance in canoeing. I shall only allude *en passant* to the fit-out of racing canoes, as it requires a considerable apprenticeship in cruising canoes before any attempt can be made at racing, and the construction and details of a racing canoe differ as much from an ordinary boat as a racing bicycle does from the ordinary roadster. But in canoe racing the *man* is by far the most important item, and a first-class hand will carry off the prize with a comparatively bad boat against a less skilful canoeist in a far better one. So my advice to you is first to try and build a *safe* canoe, strongly put together, and if with this you can get speed and beauty of form, so much the better, but I do not think you can expect to attain all desiderabilities on your first essay. If your canoe is tight, and strong, and stable in the water, that is a success, and is all I should advise you to aim at; afterwards other canoes or boats can be built by you with such improvements as experience suggests, and your increased knowledge enables you to carry out.

I may, however, say that the general aim of all sail plans of racing canoes (and cruising

canoes carrying large sails) is to give the largest amount of canvas that the canoe can carry, with the handiest and smartest method of reducing sail, and this is done by each racing man in a different way, some differing widely in their ideas, their sail plan altogether different, and the other details diametrically opposite to each other; others again only differing in very minor details, as to the use of one block or two or the lead of a rope or halyard. But even these variations show that each canoeist sails his canoe his own way, and rigs her to his own ideas, each endeavouring to improve on the other—in fair and honourable rivalry—and the best man generally wins.

(To be continued.)



F. JACQUES.—The letters D.C. after Washington are the initials of the District of Columbia, in which the United States capital is situated.

ENCLOSURE.—You can get a certificate of your birth from Somerset House by personal application and the payment of a small fee.

YANKEE DODDLE.—Buy a quarterly Navy List, and study the circulars for yourself.

RIGEL.—Applications for employment on the Midland Railway should be made to the head of the department at Derby.

ARTHUR TWIN and CORNELIUS.—The English Carabineers have a blue uniform with white facings. There is only one regiment of them. There are now thirty-one cavalry regiments and seventy-four infantry regiments, besides the Artillery and Engineers. A volunteer is a soldier who serves for no pay, and cannot be sent out of the country on service except at his own request. Each regiment now consists of several battalions; one has no less than twenty battalions.

A. Y. Z.—No one has yet succeeded in "bringing out a perpetual motion," nor is it likely any prize would be offered for what no one would live long enough to prove.

D. A.—Boil twelve ounces of hard yellow soap in three pints of water, and as it boils add a pound of patent driers and ten pounds of boiled linseed oil. This mixture will make your canvas quite water-proof, and keep it flexible.

H. C. J. L.—No. "The Drummer Boy," which appeared in the fifth volume, is now published by Messrs. Sampson Low and Co., price five shillings.

SNIDER.—There are more volunteers in Lancashire than in any county in England. Middlesex comes second on the list. Judging by the number of efficient, Warwickshire is the best county; Oxfordshire perhaps the worst.

WAR.—1. The bookbinder will arrange the parts in proper order and prepare them. He will tear off all unnumbered pages. 2. The cover sold by us takes the volume complete, coloured plates and all. 3. The indexes must be bought separately, but are bound in the yearly volumes.

KLEIN.—1. The way in which the monarch's head is looking is changed with each reign. George I. looks to the right, George II. to the left, George III. to the right, George IV. to the left, William IV. to the right, Victoria to the left. There is no reason why your coin should not be of the reign of George I., as far as we can judge. 2. Foreign words introduced into the English language are pronounced in English fashion as soon as they get out of the long clothes of italics.

J. H. R. L.—Address your letter to the Secretary of the Admiralty, and begin "Sir."

COIN COLLECTOR.—You have mistaken us for somebody else. We never said anything of the sort. George III. half-crowns are excellent things to collect, so are Victoria sovereigns; but we have never yet found any increase in their purchasing power over that of other current coin. Your own sense should have told you that a coin in daily use cannot be worth more than its standard value.

A. D.—We think a cold bath in the morning immediately after rising is decidedly beneficial to most lads.

C. S. F.—The sail used to increase the width of the spanker is a "ringtail." It is very seldom seen in fore-and-aft vessels.

JACK TAR.—The stamp is a Portuguese one. You can get a shilling book on gardening from almost any publisher, but the information will be meagre. The stamps with Helvetia on them are Swiss.

S. B. THE ENQUIRER.—The succession is regulated by Act of Parliament, and in the event of the failure of the present family a fresh Act would have to be passed. There would be no question of "rightful heirship;" it would be a case of election.

A. RIPPON.—1. A harquaine is a barque with only fore-and-aft sails on her mainmast. A three-masted schooner has fore-and-aft sails on all her masts: she may carry spinnakers and square topsails, but would not have courses, and would not have topgallant-masts. 2. Above the royals come the skysails, then the skyscrapers, then the moonrakers. 3. For the difference between a topsail-schooner and a brigantine see No. 1. The schooner would never have a foretopgallant-mast.

A. TAKER-IN OF THE "B. O. P."—Owing to our having to print for so long a period beforehand, the reports would be two months old, and perfectly useless. There is a great difference between the arrangements for printing a newspaper and those for printing a magazine.

X. Y. Z.—Consult the Cambridge Calendar, obtainable of Messrs. Deighton, Bell, and Co., of Cambridge, and apply to headquarters.

J. R. S.—When a top is spinning so fast and steadily that it does not seem to move, it is said to sleep. Hence "sleep like a top."

B. R. V.—A "carludovica" is another name for a Panama hat. The hats of that excellent straw were so named in compliment to Carlos Ludovic, or rather Carlos IV., of Spain.

HARRY.—Messrs. Macmillan are Lord Tennyson's publishers. You must apply to them.

H. TAYLOR.—The longest wide jump is 23ft. 1½in., by Mr. J. Lane. A good cricket-ball throw is one hundred yards with the wind against it, but there are no accurate records. Some make one hundred and twenty yards the best.

W. B. H. LANE.—Your method of solving the long-letter puzzle in the April part by ruling it into four and doubling the paper, so as to reduce the length of the letters, is new to us, and certainly clearer than holding the paper obliquely.

E. J. SCAMMELL.—If you order the hooks from a book-seller he will get them all for you; or, if you wish, he will affix the prices first. It is rather too much to expect us to give here the prices of twenty-seven different books.

F. B. K.—The description is correct, and skins have been successfully cured as stated. See the Museum articles in the third volume for hints on skin dressing.

L. E. P.—An article on the clans, and a plate of the tartans, were in the March part for 1883.

THE SEVEN.—The Seven Sleepers of Ephesus were seven young men who fled to a cave in Mount Celion during the persecution of the Christians under Decius, and there fell asleep. The mouth of the cave was stopped up, but they continued in peaceful slumber for two hundred and thirty or three hundred and nine years, according to which legend you prefer. They then awoke, but lived for only a short time. Their dog Katmir followed them into the grave, but they threw stones at him to drive him away, and even broke three of his legs. The dog, however, refused to move, and at last found speech to say, "I love those who love God. Sleep, masters, and I will keep guard." Which he did until his masters awoke. During their long sleep the youths turned frequently on their sides, and every time they did so some great disaster occurred to the faith. The bones of the sleepers were taken to Marseilles.

E. W. C.—The Patent Office is in Southampton Buildings, Chancery Lane. Apply there for the necessary forms.

SAILOR LADDIE.—The "Ocean Wave" articles were in the second volume, and it costs seven shillings and sixpence.

D. TAYLOR and ALMA.—There is no book on Draughts treating the game more fully than we have done in our articles, which began in No. 38, and ran through the second volume. We have had sixteen articles on the subject.

ARTIST.—Unless there is special talent we would strongly advise another career to be chosen. An apprenticeship is the best way of obtaining an introduction to business. In these days sketches are photographed on to the wood almost as often as they are drawn direct.

H. LACK SZYRMA.—1. We know of no special book on the relations between sound and music, but you will find a good deal on the subject in the works on sound by Tyndall, Chladni, and Helmholtz. 2. None but what is in the calendar, although the registrar will answer inquiries.

F. W. M. MUNRO.—1. The object of the boom on the headsails is to keep them flat. If you can keep your sails flat without the boom you can dispense with it. How you are to do it, however, we fail to see. 2. The topsail halliards are passed through a block in the topmast, but in models a hook on the topsail yard is hooked into an eye or ring about an inch from the truck. 3. No.

ARCHER.—Amsterdam has about three hundred bridges, and so would be the "best bridged city in Europe."

A. COLONIAL (Christchurch, N.Z.).—Yes, but the amount of inferior verse that reaches us is so great that we do not care to say send, but should advise you to seek nearer home for a channel of publication.

B. A. MAN.—Your best plan would be to get "Boat Building for Amateurs" from 170, Strand, price half-a-crown, and study it before you commence. You can get navy canvas from any tent or sail maker. Consult a Glasgow directory.

W. HILL.—1. You must be apprenticed to learn the art properly. The stone comes from Solenhofen, in Bavaria. It is an argillaceous limestone. 2. Put the engraving on a smooth board, cover it thinly with finely-powdered salt, squeeze lemon-juice upon the salt till nearly all of it is dissolved; tilt the board till it forms half a right angle, pour on to it boiling water from a kettle until the salt and lemon-juice are all washed away, and then dry the engraving gradually—not before the fire, not by a lamp, and not in the sun. For other ways see back numbers.

A. L.—The fact of it being impossible to answer your letter in time for the wedding relieves us from the necessity of betraying our ignorance in matters so æsthetic. When the bride's dress is deep crimson, and the bridesmaids' deep slate, what should be the colours of the tie, gloves, and flower of the best man? To what a pitch has our art education gone when it thus takes three people to show "a har-mony"! The question somehow reminds us of those fashionable plaid trousers immortalised by Leech, of which it took two men to show the pattern.

M. J.—Some of the largest of the Scotch ash-trees are at Logierait, Gray, Ochtertyre, and Drummond Castle. That at Logierait is forty feet in girth at a yard from the ground; that at Ochtertyre is thirty-five feet at a foot from the ground; that at Drummond Castle is twenty-two feet at a foot from the ground; that at Gray is twenty-five feet at a foot from the ground. There are probably ash-trees even larger than these, but we have met with no trustworthy account of them.

W. A. B.—For permission to fish in the park you must apply to the Ranger.

W. WESTMORELAND.—Get the latest edition of Mr. Thomas Gray's "Going to Sea, or Under the Red Ensign." It is published by Messrs. Kent and Co., Paternoster Row, and obtainable from all book-sellers.

J. S.—There is no breed of fowls that will thrive in a dark, damp place. If you cannot house your pets properly give them away.

BANKER'S CLERK.—Such appointments are only gained through ordinary Civil Service examinations, for which you must watch the advertisements.

FREEZING.—The stuff fixed on wire to imitate rocks is only ordinary Portland or Roman cement.

CLERICS.—See our numerous articles on Model Yachting; or get the four shilling book published by Norie and Wilson, of the Minorities.



THE BOYS' OWN PAPER

No. 307.—Vol. VII.

SATURDAY, NOVEMBER 29, 1884.

Price One Penny.
[ALL RIGHTS RESERVED.]

IVAN DOBROFF: A RUSSIAN STORY.

BY PROFESSOR J. F. HODGETTS,

CHAPTER II.—MOSCOW.

Moscow is unknown to most English people. We know something about India, plenty of us have been to France and Germany, but not one in ten thousand has seen more of Russia than photographic views of her churches and towers.

The Kremlin at Moscow was formerly reckoned among the grand productions of human art, and really does not disappoint.

It is the ancient fortress of the Tsars of Muscovy, and contains within its walls some of the most interesting remains of their earlier empire. It is surrounded by a brick wall built quite perpendi-

cular, and surmounted by battlements of a very peculiar form, being cut out in the centre instead of having an unbroken straight line. At regular intervals along the walls small cylindrical towers are built, with curious roofs to them, giving them almost the appearance of pepper-casters of unusual size.

It is a little town within, containing the palace, the armoury, the official residences of the officers of the Imperial household, the courts of justice, some of the most holy churches in Russia, and the celebrated tower of John the Great, at the foot of which stands the king of the bells,

the largest bell in the world—so large that it could not remain in its place, but fell from an immense height, breaking a piece out of its side, which stands near the aperture made by the fall. The monster bell is quite a little house, and the fracture looks like a doorway.

The dome on the top of Ivan Vilike is shaped something like a turban, and as much like a turnip. It is gilt, and is surrounded with inscriptions. The domes of the churches are all either gilt or painted a rich blue with golden stars all over them. But whether gold or blue, they are invariably surmounted by the



"Ivan, losing his balance, fell heavily to the ground."

Russian or Greek cross, which is strongly gilt and hung around with gilt chains. All these bright objects glitter in the sun, and stand out grandly from the pure blue sky.

Besides the churches in the Kremlin there are other sacred buildings. There is a nunnery and monastery, besides the gates, which are all sacred. One of these, the principal gate of the Kremlin, has a holy picture; and it was formerly a law that everybody passing under this picture should take off his hat. There were until within the last few years soldiers to enforce observance of this law, and no excuse on the ground of a man being a foreigner was admitted. Non-compliance with the custom was punished by imprisonment, and in some cases exile to Siberia. The picture, it is said, excited the wrath of the first Napoleon, who heard of its sanctity, and determined to destroy it, but it was singularly preserved from the fury of the French, and remains in its old position to this day over the gate in the clock-tower.

Along one side of the Kremlin flows the Mosk, a river from which the city of Moscow takes its name. The position of the fortress with reference to the river is similar to the relation between the Thames and the Tower, to which latter building—allowing of course for the difference in style of architecture, etc.—the Kremlin in some respects corresponds.

Three days after the fatal evening on which the house at Berzovo was burnt to the ground a man in the dress of a confidential servant to a banker or merchant was seen to enter the Kremlin by the north-eastern gate and proceed to the terrace which overlooks the waters of the Mosk. He was an *arteltchik*, so called from belonging to the "Artel," a society formed by the better sort of office servants (not clerks) to insure the honesty of its members and to make good any sum of money that may be lost by the neglect of any one of the number. It is similar as a security to the caution-money deposited by such people in England.

The man carried in his hand a small packet, and was evidently waiting for some other person. He was in no particular hurry, for after looking for a moment at the distant "Sparrow Hills," from which Napoleon first beheld Moscow, he turned back, and, approaching one of the churches, took off his cap and bowed low in adoration to the figure of a saint depicted in fresco on the outer wall of the building. He crossed himself many times, and entered the gorgeously decorated church to offer a taper at the shrine of his patron. This done, he left the sacred edifice and continued his walk on the terrace, every now and again glancing at the huge clock in the tower, and then looking in the direction of the new and splendid cathedral of "Our Saviour."

"What a time that fellow is!" exclaimed our devout *arteltchik*, following up his impatient remark with a series of such explosive expressions as would have shocked anybody not accustomed to the habits to which the lower classes are addicted. "Oh, here he is at last! What do you mean by keeping me here all this time? Where is Ivan?"

"He is with Saschinka, and as well as can be."

"Why did you not bring him with you?"

"*Tak!*" was the reply, meaning literally "so," but having the force of "Because I didn't." If you ask a Russian how he is, he will answer, "*Tak sibya*—" "So as it may be to me." Ask him how he likes his new clothes, he says "*Tak*," meaning "Oh, they'll do." Ask him whether his son is a good boy, the reply is "*Tak*," meaning "Oh, he might be better." Ask him whether his master has called him a rogue, "*Tak*," equivalent to "Precisely so," is the answer.

"Have you found out anything about the Ozoonovo matter?" continued the *arteltchik*.

"Look here, Ivan Nekiteroff, I have taken all the trouble in the world, and I can only learn that his mother, or foster-mother, whichever she was, has been dead for some years."

"Then have you no information as to why Mr. Smirnoff took such a wonderful interest in him?"

"I suppose," said the other, "that he wanted some object for his charity, and Ivan was as good as another; but why he calls him Ivan Dobroff I cannot think, and as to his deserving such a surname, I don't see it. He thinks more of fun than of learning. He never sees a Tartar without making a 'pig's ear' with some portion of his dress to insult the Moham-medan by an allusion to the swine. Since he has lived with us we have had no peace for his tricks, and I am anxious to get back to Maziellovo before any mischief happens. I think there is nothing particular about the boy or his case more than usual."

"Perhaps not, but I am naturally suspicious, and Mr. Smirnoff is not the kind of man to do a good action—*tak!*—unless good to himself came out of it. Now, having reasons for being interested in this matter, I propose driving with you to Maziellovo and having a talk with Ivan myself. I have something for him here."

An *isvoshechik*, or hired driver, answering to our cab-driver, was engaged after some haggling and more joking to carry the two friends to Maziellovo, a village about five miles from Moscow.

After the usual amount of bumping and shaking they came at last to the village, rather picturesquely situated, and containing better huts than those described in the last chapter.

The proximity of the place to Moscow causes it to be frequented by the townspeople, who are fond of hiring such huts and living a sort of gipsy life during the summer. This is pleasant enough while the warm weather lasts, but when it becomes either hot or cold it is simply wretched.

It was about twelve o'clock at noon when the two friends arrived at Maziellovo and descended from their vehicle, joking and chaffing with the driver to the last, who, not a whit behind, returned their sallies with interest.

On entering the hut, which had been specially prepared for the reception of visitors, and had by a few rapid touches of the decorator's art been transformed into a *datchie*—i.e., country villa—our two new acquaintances were surprised at seeing the simple arrangements of the sitting-room entirely upset and turned to nought by the active energy of a boy of some eleven years of age, who had pushed all the simple furniture into the adjoining chamber, and, having procured a rope, had contrived to attach it to certain hooks driven into the

wooden walls of the room. He was now balancing himself as well as he could on the extended cord.

With a degree of caution hardly to have been expected from such a "pickle" as this youngster evidently was, he had placed all the beds he could find in the sleeping-room under the cord on the floor to break his fall in case of an accident. He had received one or two falls, but, with a perseverance worthy of a better cause, he had again mounted and was hanging by both hands from the cord, along the whole length of which he contrived to shuffle from end to end.

"What is the boy up to now?" exclaimed our Kremlin friend. "Is he really mad after all?"

Amused at the fears expressed by this person, who took so warm an interest in him, Ivan began to laugh, and thereby losing his balance fell heavily to the ground, but being caught by the mattress no great harm was done. Still, as he tried to raise himself he became sensible of slight pain in the ankle, to which he immediately clapped his hand and exclaimed,

"Oh my! it's sprained!"

"Run," cried the *arteltchik*, "run, Stefan, and fetch a doctor!"

"Don't want a doctor, it's nothing. I'm going to be a cavalry officer and don't mind pain."

"I don't think there is much the matter with him," said Stefan. "But if you like I will run for Dr. Wolf."

"Look here!" said the boy, "I don't want any doctor at all, and I won't have Wolf, because he's a German, and all good Russians hate Germans!"

"What is that I hear?" exclaimed some one, appearing suddenly upon the scene. "What good men hate is only evil, my dear boy. I have never taught you to hate anybody."

"Mr. Smirnoff!" exclaimed Stefan.

"Who would have expected him?"

"Were you quite alone, Ivan?" asked Smirnoff.

"Yes," said the boy; "I was only playing, and indeed I am not hurt. It was nobody's fault but my own, and I will never do so any more!"

Smirnoff smiled at the boy's eagerness, but he saw that he was in some pain, and thinking the injury might be severe, dispatched Stefan straight to Dr. Wolf, the nearest medical man.

During his absence Smirnoff began to chat with Ivan on the subject of his studies. The boy answered his questions with a docility very unlike the manner in which an English boy would have answered, and during the whole conversation he sat on a wooden bench placed under the window with his foot raised and resting on the bench. But his answers were not very satisfactory. And Smirnoff at length asked him how many hours a day he employed in lessons.

"Oh! that depends; sometimes Mr. Palitzki has less time than others, sometimes more!"

"H'm!" said Smirnoff. Seeing clearly that the boy was shielding his tutor by the vagueness of his replies, he resolved to ask him no more questions on such delicate subjects. Just at this moment the woman of the house, Saschinka, came in and exclaimed violently at the disorder in the cottage.

"What a mess! Oh, Ivan, what a naughty boy you are! When Mr. Palitzki comes home to-night I will tell him to

give you some long lessons to learn before he goes out to-morrow, just to keep you out of mischief! Gruscha! come here, Gruscha!"

"Ah!" said Smirnof. "Mr. Palitzki goes out a good deal then, does he?"

"Oh dear me, yes sir," said the woman, "he seldom comes home before the evening."

"How can you say such a thing?" said Ivan, hoping again to hide Palitzki from Smirnof's wrath. "I am sure he gives me enough to do! If I learn all that I shall soon be fit for the university!"

"I hope you will be fit for the university one of these days, but there is no hurry. It is not necessary for you to pass through the whole course, but I want you to know Latin well."

"And that is just what I hate worse than a German!"

"Ivan, I will not have you speak so violently against any people! You are too young to understand such questions, but we Russians owe much—very much—to the Germans."

"I don't think we owe them anything; they are always well paid for what they do. They take care of that!"

"Who has made you such an anti-German? I am sure you did not learn these notions from me."

"Of course not! You hate nobody—not even the Germans!"

"Glad to hear that, at all events," said a pleasant, powerful voice, as a brisk, good-tempered-looking man entered the room.

"Dr. Wolf, I believe!" said Smirnof, with extreme kindness, as the stranger entered. "Very glad to see you. It was very kind of you to come to see my little adopted son. I don't think there is much the matter with him; still, I have a horror of sprains, and I fancy the ankle is swollen."

"Let me see the injured place, my boy. You are a brave little fellow, anyhow."

"I don't see that," said Ivan. "There is nothing the matter with me unless you bite me!"

"I bite you! What do you mean?"

"Wolves bite, and I am afraid of wolves. Am I a brave little fellow now?"

"You are an impudent little fellow, at all events. But let us see the injured part."

The doctor turned up the white canvas trouser of the boy, and then made the usual "passes" with his hand round the limb, which, after a due amount of punching, pinching, and pushing, he declared to be quite uninjured, greatly to the satisfaction of Mr. Smirnof.

"You have nothing to be afraid of now, my boy," said the doctor. "Run off as if I or my namesake were at your heels."

There had been a kindness and a tenderness in the tones of this "German" that had gone straight to the heart of little Ivan. He looked up in the doctor's face, and with his peculiarly sweet smile said, "Thank you, doctor. I hope you will forgive my rudeness, but I did not think you would have been so kind. May I go now?"

"Good-bye, my boy. Run away and enjoy yourself in the sunshine, but take care not to get too much of it."

Away sprang Ivan, glad to find that the "crick" which his ankle had made when he fell was no sign of fracture, and

that the swelling was due only to the imagination of his adopted father.

"Has the boy no mother?"

"Neither mother nor father."

"The father's place you can supply, but no one on earth can be a mother to a motherless boy. There is great gentleness with all his odd, half-savage ways. Pity there is not a kind, motherly woman to look after him."

"Yes, I think so. He boarded, however, in the family of a priest, whose wife exerted a very good influence upon him."

"That is hardly enough. The woman to whom he is confided ought to be a lady; she, I fancy, is not."

"You are right, doctor; I will see about it. I am most dissatisfied with a young student to whose care I have confided him, and this person—I have only to-day discovered the fact—is in league with a party of Nihilists! Just in time I discovered, through a servant, certain papers which had been left by Palitzki in a drawer by mistake. The man could read, and after looking through them thought it his duty to bring these papers to me, and I have come to Maziellovo on purpose to expose and dismiss this young man."

"There is metal in that boy, Mr. Smirnof; look at him yonder!"

Smirnof looked out, and beheld, not far from the house, little Ivan with a long stick, which he was managing after the fashion of the Cossacks, who are very expert with the lance. He had engaged about a dozen of the peasant children to join him, and had armed them with similar sticks. He was now marching them, with their toy lances sloped over their shoulders, to the sound of their own voices, as the Cossacks are marched to the same vocal music. The Russians have a remarkable gift as regards song. The service of their church is almost entirely song, and the boys are accustomed to it from a very early period.

The charm of this childish music was very great; and Smirnof, begging the doctor to excuse him for a moment, left the house to hear them better, as they marched round from the street towards some common land at the rear, while the doctor, who seemed to have taken a wonderful amount of interest in our hero, commenced the following conversation with Stefan.

"Fine little chap that!"

"Yes, doctor, the saints be praised! He is not a bad boy—awful wild, though!"

"He seems to me very affectionate and gentle in his way."

"He is all that, especially with Metrofan Dmitrievitch. But he can be wild when he likes. Oh, dreadful! Wants to be a soldier! He is quite another boy alone."

"I suppose Mr. Smirnof does not like these soldiering tastes?"

"Who? Oh, Smirnof! Oh, no, he doesn't believe in soldiers, you know. He is a merchant."

"But many sons of merchants become officers nowadays, especially as everybody has to serve."

"That is true; but Mr. Smirnof is educating him to be his heir. So he goes to the Gymnasium, and learns Greek and geography. He will be a *barin* (gentleman) himself in time, and have his own estate and servants, and goodness knows what fine things! Yes, such is God's will!"

"Strange! But, tell me, whose son is he?"

"That I do not rightly know, but his father was a soldier, and was killed by the English."

"Nonsense! If his father had been killed in the war against the English in the Crimea, the boy must be nearly thirty years old now! Don't you know the war with the English was in 1854?"

"I don't know when it was, but I remember only some four or five years ago, when Skobelev was fighting the English at Plevna—"

"Skobelev never fought the English; you are thinking of the Turks."

"Well, of course you must know best; but I thought that was all the same—they are all pagans. It is all the same thing."

"Never mind whether they are pagans or good Christians; was it at Plevna that this boy's father was killed?"

"They say so, and his mother died long before; so Ivan was put out to nurse, but I suppose there was no money, and the nurse died about two years ago, and so Metrofan Dmitrievitch heard of the boy, and now he has adopted him. Why I cannot tell."

The conversation was here interrupted by the entrance of a tall and not very cleanly young man, who entered the room hurriedly, exclaiming "Ivan! Ivan!" He started on seeing the doctor, and said,

"Hullo! what's the row now? Ivan ill?"

"Is your name Sergius Nicolaevitch Palitzki?"

"It is. Why do you ask?"

"I wanted to know whether you were the student to whose care the boy was confided?"

"And if I am, is that any business of yours?"

"Decidedly," said Wolf, waxing warm: "the boy might have had a serious accident through your neglect."

"My neglect! What do you mean! I gave him the First Declension to learn; if he had done his duty *you* would not have been here!"

"Perhaps not; but you cannot expect the boy to love his duty when he sees you neglect yours."

"Who says I neglect mine?"

"It is well known," said Wolf, at a venture, "that you habitually neglect the child."

"I have not engaged myself as a nursemaid, and I am not answerable to any person here, especially not to a *German*—this in a tone of great contempt—"for any of my actions, and I do not neglect my duty."

"Oh, yes, you do, though," said Smirnof, appearing as he spoke, and addressing Palitzki in a quiet, firm undertone. His appearance was so unexpected by the student that his surprise and fright partook somewhat of the comic element.

"Sir," said the student, "this is a fresh insult! What that German doctor said I can set down to the score of his ill-will at losing a patient. But what you say, as the guardian and protector of this child, is another and more serious matter."

"Oh, yes," observed Smirnof, in the same quiet, calm, and resolute manner: "you are quite right there. The one is only a medical opinion, although a valuable one; the other may be connected with serious consequences, Sergius Nicolaevitch Palitzki!"

At this the young man assumed a

very blustering air and commenced talking in a high key, but Smirnoff produced a small leathern case from an inner breast-pocket. This he opened, and selecting a paper from several documents therein contained, opened it, and held it out so that Palitzki could see the signature, and then, withdrawing it rapidly as that worthy made a sudden grab at it, as if to tear it away, said, without any change in his voice or demeanour,

"That is your handwriting, nor would it be of the slightest use to deny it. You are known, and must trust to my mercy and forbearance; it is quite ridiculous to attempt the heroics when I hold *this*!"

Palitzki said not a word, but turned away and entered the sleeping-room which he occupied in common with Ivan Dobroff. Meanwhile, Smirnoff turned to the doctor, and said, in a sweet and engaging voice,

"My dear sir, I am quite ashamed of myself to think of your being witness to a scene like this, and still more ashamed to think that you have been standing all this time. Pray take a seat, and allow me to express my obligation to you for your cure of my boy, who I am sure will not forget it. I most particularly desire that if your other occupations will permit you should give us the benefit of your advice and valuable aid as our regular household medical friend."

"You are very good, and I am flattered by this mark of your confidence, but for the moment you must not think me churlish if I run away. I neglected an important case, which I should have attended an hour ago, but was called in to your interesting young *protégé* there."

"My dear doctor, if your time is so short, pray take my horses and droszky. They are fresh, and will carry you over the ground in no time!"

"Thanks! but my little nag with the tarantass will serve my turn. I am only going over to Daviedovo!"

"As you please; but you said you had neglected a dangerous case to come to my family, and I thought that my horses would help to make up for lost time!"

"Well, there is a great deal in that, so I will accept your offer, and perhaps through the freshness and better condition of your cattle I may be in time."

The two men left the house together to compare notes about their horses. There was not much room for any great diversity of opinion there. The droszky of the wealthy Moscow merchant was a curious structure on four small wheels, with a seat for one person in the body of the vehicle, which was as lightly built as possible and painted black. The horses were two beautiful black steeds in splendid condition, one harnessed to the shafts and having the universal Russian *duga* over his head, while the other was attached by a yoke and traces to the side. The driver was a stout, burly, good-humoured Russian, with carefully cut beard and hair, just a little of a white neckcloth to be seen above the collar of his long gown-like blue cloth coat, and he wore on his head a very smart low-crowned black beaver hat very curly in the sides, with very small brim and very wide top. Round the waist of this portly figure was bound a deep-red scarf, and he held in the horses with both hands. The tarantass of the doctor was like nothing else but another tarantass, so I

must try to make my young readers understand as well as I can by description.

The tarantass is a light frame on four wheels, on which some half-dozen very elastic wooden bars are placed parallel with the length of the machine. These are the *springs*. Upon them is fixed a semi-cylindrical contrivance made by bending a number of pieces of wood into the shape of half hoops; these are connected by longitudinal bars of wood, and the whole is covered with thick bark of trees. By this means a sort of basket is formed of a semi-cylindrical shape. The two ends are closed with bark and pieces of wood, and then this basket, boat, or cradle is fixed upon the elastic poles which do duty as springs. The axle-trees are very long, so long as to admit, in some cases, of shafts being fitted inside and also outside the wheel, each shaft forming a sort of fork in which the wheel plays. The vehicle owned by our friend the doctor was not so cumbrous, inasmuch as the shafts were simple like the ordinary shafts in general use. A board was strapped across this queer machine, adding much to its nautical look, giving the observer the impression that it was some odd kind of boat on wheels.

"Good morning, Dr. Wolf!" cried the driver of the dandy droszky to the doctor. "I hope you are quite well. Glory be to God, I am all right since you cured me that time at Tula. You remember?"

"I remember now," said the doctor. "Awful scamp he is too"—this in a whisper to Smirnoff, who nodded appreciatively, and said, with all the pride of ownership, "The biggest scamp in Moscow! I am very proud of him!"

"Well, I want you to take the doctor across to Daviedovo. If you do it in a quarter of an hour I shall let you off that ten roubles for the wheel you smashed in your carelessness last Saturday."

Here the driver's face glowed with humour. "All right, barin!" he said; "you would never stop a trifle like that out of a poor man's wages—a gentleman like you, too! I know you better, and I thank you beforehand for the nice new crisp ten-rouble note you are going to give me if I'm back within the half-hour."

Both Wolf and Smirnoff laughed, and the latter said, "I don't want you back until Dr. Wolf wishes to return, only he must be in Daviedovo in fifteen minutes. Never mind me, doctor, I can take your tarantass to Moscow, from thence your man can drive back to Mazielovo in your vehicle. It's all right; jump up, and allow me to hand you this for your visit to-day. We have not commenced our annual regular arrangement yet, so this must be considered as an ordinary visit. Good-bye."

"You make everybody do what you like," said the doctor. "I cannot resist you; but you may depend on my doing my best for the boy."

"All right, doctor?"

"All right! Pasholl!"

This was to the driver, and meant, "Be off with you!"

And they were off! Away they darted over the broad, uneven road, then they turned down a branch path near the smaller houses. Away they went. Smirnoff stood gazing, so did the arteltchik,

so did Stefan, so did Saschinka, so did Gruscha.

At last they turned to enter the house, which Gruscha was the first to do. She uttered a cry of surprise. Smirnoff, attracted by the sound, rushed into the datché, thinking that something had happened to Ivan Dobroff. But who can paint his consternation on finding that Palitzki had fled? The window was open, the small drawer in the chest which contained his linen and one change of raiment was empty. The little hand-valise which he boasted could contain his all was gone also. And what else? Why, the little boy! Ivan Dobroff had vanished too!

(To be continued.)

THE STAR OF THE SOUTH.

BY JULES VERNE.

CHAPTER VII.—THE LANDSLIP.

A FORTNIGHT passed, and Cyprien found not a single diamond. More and more did he become disgusted with his trade. It seemed to him, without capital enough to buy a first-class claim and pay a dozen Kaffirs to work it properly, but little better than a swindle.

One morning, while Matakia and Bardik went out with Steel to work, he stayed in his tent to answer a letter from Pharamond Barthes, which had been brought in by an ivory trader.

Barthes was enchanted with his life of hunting and adventure. He had already killed three lions, sixteen elephants, and an incalculable number of giraffes, antelopes, and such small game.

"Like the conquerors of history," he said, "we make war feed on war. It frequently happens that we not only feed the whole expedition on what we bag, but also make considerable profit by selling or bartering the skins and ivory." And in conclusion he said, "Why don't you come with me and have a turn on the Limpopo? I shall be there about the end of next month, and intend to go down to Delagoa Bay, to return by sea to Durban, whither I have promised to take my Basutos. Leave your horrible Grigaland for a few weeks and join me."

Cyprien was reading the letter over again when a tremendous noise, followed by a loud shouting in the camp, made him rush out of his tent.

An excited crowd were running towards the diggings.

"A landslip!" was the cry from all sides.

The night had been very cold, while the preceding day had been one of the hottest for some time. This sudden change of temperature had, as usual, caused the earth to crack and break away.

Cyprien hurried to the kopje. A glance showed him what had happened.

An enormous block of earth, about sixty yards high and two hundred long, had been cleft vertically, and a fissure formed in it like a breach in a rampart. Thousands of tons of gravel had been detached from the main mass and rolled down into the claims, filling them with sand, pebbles, and rubbish. Everything on the spot at the time—men, oxen, and

carts—had been hurled below. Fortunately the majority of the diggers had not yet gone down to work, so that but a very few were buried by the fall.

Cyprien's first thought was for Steel, and soon he had the pleasure of recognising him amongst the men near the cleft. He ran up to ask him how it had happened.

"We are all right," said the Lancashire man, as he shook hands.

"Where's Matakî?" asked Cyprien.

"He is down under there," answered Steel, pointing to the rubbish which was heaped up on their claim. "I was waiting here till he had filled his first bucket when the slip took place."

"But we cannot leave him there without trying to rescue him. Perhaps he is still alive."

Steel shook his head. "It is not likely that he can be living under fifteen or twenty tons of earth. Besides, it would take ten men two or three days to clear all that off."

"Never mind," answered the engineer; "it shall not be said that we left a fellow-creature down in that grave without trying to get him out."

And then, through Bardik, who was standing near, he offered to the Kaffirs the high pay of five shillings a day to all who would help to clear out the claim.

Thirty negroes undertook the job, and without losing an instant set to work. Picks and shovels were there, buckets and ropes were ready, and the carts were standing by. A great number of the whites, hearing that they were trying to dig out a poor fellow buried alive by the landslip, volunteered their help, and Steel, thoroughly roused by Cyprien's energy, was by no means the least active amongst them.

By noon several tons of gravel had

been cleared away. At three o'clock Bardik uttered a hoarse cry. Beneath his pickaxe he had just caught sight of a

black head. The men worked with a will, and a few minutes later Matakî's body was exhumed. The unhappy man



"The unhappy man was lying on his back."



"Men, oxen, and carts had been hurled below."

was lying on his back, motionless, and to all appearance dead. By a singular chance one of the leather buckets had been turned over on his face and covered it like a mask.

This Cyprien noticed at once, and it led him to think that he might recall the poor fellow to life. The hope, however, was very feeble, for the heart beat no longer, the skin was cold, the limbs had stiffened, the hands were clenched in agony, and the face—of that livid paleness peculiar to the negroes—was frightfully contracted by asphyxia.

Cyprien did not lose courage. He had Matakî carried to Steel's hut, which was nearer than his own, and here he was laid on the table where the gravel was usually tried over. Systematic rubbing was then begun, particularly that chafing the thoracic cage, with a view to establish artificial respiration, which is employed in the case of the apparently drowned. Cyprien knew that this treatment was equally applicable to all kinds of asphyxia, and in the present instance he had nothing else to attend to, as no wound or fracture, or even serious bruise, was apparent.

"Look!" said Steel, who was rubbing away assiduously; "he is holding something in his hand!"

The result of these measures soon became apparent. The corpse-like stiffness of the young Kaffir gradually relaxed; the temperature of the skin sensibly changed. Cyprien, who was watching the heart for the least sign of life, thought he could feel a gentle trembling that augured well.

Soon the symptoms became more marked. The pulse began to beat, a slight inspiration seemed to insensibly inflate Matak's chest, and then a stronger expiration betrayed a manifest return of the vital functions.

Suddenly two vigorous sneezes shook

telligence, obedience, and ardour in his work were astonishing. He was fearless and obliging, and of a singularly quiet and cheerful disposition. He had, however, one fault—a very serious one—due evidently to his earlier education, and to the Spartan customs that prevailed in



"I should try to make diamonds."

the black carcass from head to foot. Matak opened his eyes, breathed, recovered his consciousness.

"Hurrah! hurrah! he's all right!" exclaimed Thomas Steel, as, dripping with perspiration, he suspended his rubbing. "But look! he has never left go of that piece of earth in his hand!"

Cyprien had other things to think of than such a trifle as that! He made his patient swallow a spoonful of spirits, and then raised him so as to facilitate his breathing. Finally, when he found he had really returned to life, he wrapped him up in blankets, and, with the help of three or four willing companions, carried him to his own hut at Watkins Farm.

There the poor Kafir was put to bed, and Bardik made him take a mug of hot tea. In a quarter of an hour he peacefully fell asleep. He was saved!

Cyprien felt that incomparable gladness in his heart which a man experiences when he has snatched a human life from the jaws of death; and, sitting down by Matak, took up a book, interrupting his reading from time to time to look at him as he slept—like a father watching the sleep of a convalescent son.

During the six weeks Matak had been in his service Cyprien had had every reason to be satisfied with him. His in-

his father's kraal. Matak was just a little of a thief, but almost unconsciously so. When he saw anything he liked he thought it the most natural thing in the world to annex it.

In vain his master, alarmed at the tendency, talked to him and argued with him. In vain he had threatened to send him away if he found him out in another attempt. Matak promised never to do so again, cried, begged pardon, and the very next day stole something else, as if nothing at all had happened.

His larcenies were not heavy, however. His covetousness was not excited by things of great value: a knife, a cravat, a pencil, or some such trifle would be enough for him. But Cyprien was none the less broken-hearted at finding such a failing in so sympathetic a nature.

"Wait! hope!" he said. "Perhaps I shall some day make him understand how wicked it is."

Towards nightfall Matak awoke, as well as if nothing had happened, and then he told his story.

The bucket that had accidentally covered his face, and a long ladder serving as a buttress above him, had kept off the pressure, and saved him for some time from complete asphyxia by leaving him a little air to breathe. He had made

the best he could of this fortunate circumstance by breathing only at long intervals. But little by little the air became foul. Matak found his senses gradually going, and fell off into a deep, painless sleep, whence he roused for a moment now and then to make a determined attempt at inspiration. Then all was a blank.

Cyprien let him talk for a minute or two, and then got him to drink and eat, and compelled him, in spite of his protests, to remain in bed for the night. Then, feeling sure that all danger was over, he left him alone, and went to pay his customary visit to Watkins Farm.

He wished to tell Alice what he thought of the events of the day, and of the dislike he had taken to the mine—a dislike which the deplorable accident of the morning could not but increase. He told her of his disappointments and vexations, and of the letter he had received from Pharamond Barthes. Would it not be better for him to take his friend's advice? What would he lose by going to the Limpopo and trying his luck as a hunter? Surely it would be a nobler occupation than that of sifting the ground like a miser, or getting other people to sift it for him.

"What do you think, Miss Watkins?" he asked. "You have so much practical good sense, advise me. I have lost my moral equilibrium; I want a friendly hand to set me right again."

Thus spoke he in all sincerity, pleased, he knew not why, at thus betraying his indecision to his gentle confidant, who listened with deep sympathy.

"I have long thought the same of you," she answered. "I cannot understand how a scientific man like you can abandon yourself to such a life. Is it not a crime against yourself and against science itself? To give your precious time to mere hard labour, such as a Kafir or a Hottentot could do much better, seems to me to waste it."

Cyprien had only one explanation to give of the problem which so greatly astonished and shocked the young lady. Perhaps she was exaggerating her indignation a little to force him to an avowal? But that avowal he had promised not to make, and so he restrained himself, although it trembled on his lips.

Miss Watkins continued, "If you want to find diamonds so badly, why don't you look where you are most likely to find them—in your crucible? What! you a chemist, knowing more than anybody what these wretched stones are which people value so highly, and set yourself to mere mechanical labour? If I were in your place I should try to make diamonds, not to find them!"

Unfortunately at this moment Watkins awoke from his sleep to ask the latest news from Vandergraart Kopje, but the seed had been thrown on good ground, and was sure to germinate.

As the young engineer returned home he pondered over Miss Watkins's thrilling words. All that was fanciful about them disappeared when he thought of the generous and almost tender confidence that they showed in him.

"And why not?" he asked himself. "The fabrication of the diamond may have appeared Utopian a century ago, but now it is as good as done. Frénoy and Peil have made rubies, emeralds, and sapphires which are only differently coloured crystals of alumina. MacTear

and Hamay, of Glasgow, really made diamonds, and their only fault was that they were so horribly dear—dearer than the natural diamonds of Brazil and Griqualand—and consequently the discovery was of no commercial value. But when the scientific solution of a problem has been arrived at, the industrial solution is not far off. Why should I not seek for it? The men who have failed hitherto have been mere theorists—men of the study and the laboratory. They

have not studied the diamond in position—in its native earth—in its cradle, so to speak. I have the benefit of their work—of their experience—in addition to my own. I have extracted the diamond with my own hands. I have analysed it, studied it under every aspect in which it has been found. If anybody had a good chance of succeeding, I am the man—at least, I ought to be the man.”

Thus thought Cyprien, as, turning the matter over in his mind, he lay

awake during the greater part of the night.

His resolution was soon taken. On the following morning he told Steel that he did not intend to work his claim any more, and arranged with him to retire from the partnership as soon as some one could be found to take his place. Then he went back and shut himself up in his laboratory to think over his new scheme.

(To be continued.)

SCHOOL AND THE WORLD.

CHAPTER XIII.

“GARLAND,” said Ferguson the same evening, after tea, “can you come into our room during preparation? I want to talk to you.”

“All right, I will manage it.”

“Come in without letting everybody see you. It’s an unpleasant business I want to consult you about.”

Garland wondered what it was, but restrained his curiosity for the present.

He obtained permission to leave the big room half an hour earlier than usual. Ferguson was waiting for him.

“Would you like to be treasurer of the football this season?” he asked.

“No, thanks. Why? Are you going to resign?”

“Yes; there isn’t enough money to make it worth while to have a treasurer that I can see.”

“What do you mean?”

“I mean that some one has been paying a visit to my desk, and relieved the club of its superfluous cash. We shall have to get along with our old balls this year.”

Garland seemed thunderstruck.

“Who has done it?” he asked.

“You don’t suppose I know, do you? Keep calm, my dear boy.”

But Garland was unable to do so.

“Have you told the Doctor?”

“No, and I don’t want to till I have something more to tell him than I have now. I want to find where it is first, and then it’s the Doctor’s business to make the fellow who has got it disgorge.”

“You think it’s some one in the school?”

“There are a hundred and fifteen boys, and only about a dozen servants, so the odds are in favour of its being a boy.”

“But who do you suspect?”

“Now we’re coming to the point. You’re a safe chap, that’s why I’m telling you about it. The first point is, where is Melhuish?”

“He wasn’t in to tea, but he may have got leave to stay out.”

“No, he hasn’t; I found that out. I believe he’s gone—run away.”

“What for?” asked Garland, incredulously. “He’s been very queer lately, but I thought that was because he wasn’t well.”

“I don’t know why he’s gone, but you may be sure he has. You’ll find he won’t turn up at prayers, then they’ll find out about it. The point is this. On the face of it Melhuish has taken this money to run away with; but, on the other hand, suppose some one else knew he was going to run away, and so took the opportunity of helping himself, taking it for granted that the blame would fall on Melhuish?”

“That doesn’t seem probable.”

“No, but a lot of unexpected things happen. I’m inclined to suspect Melhuish, but I don’t mean to jump to conclusions too soon.”

“How can you prove anything?”

“I’ve several ideas. First, I’ve found out who were in here after I left the room about five minutes to five, when my desk was all right. Next, the gold I had in that bag was marked. You see, I didn’t like that business about Simpson’s money at the beginning of the half; it was never cleared up; so I resolved I’d keep an eye on the cash in my charge. We can find out if Melhuish paid for his ticket in gold or silver. I’m going down to-night about it. I can get the Doctor to let me out; in fact, he will be sure to send me, when he finds Melhuish is gone, to discover where he took his ticket for. If he doesn’t send me he’ll send you. Then both of us must keep a sharp lookout for any gold that is knocking about; if any youngster seems spending an unusual amount he must be watched.”

“I don’t half like this,” said Garland.

“My dear fellow, you don’t suppose it’s a pleasant job for me, but I don’t mean to stand the loss of three pounds ten without making an effort to get it back.”

The prayer-bell rang, and they went back to the big room. The Doctor stalked in with his book and mounted the desk. Names were read out; that of Melhuish received no response.

Prayers were proceeded with as usual, though not a few were wondering what had become of him. When the Doctor descended from his desk, he asked Mr. Pickering where Melhuish was. Mr. Pickering was unable to inform him.

“Come with me a moment,” said the Doctor. Excitement now took possession of the school; it reached fever height when Garland was sent for. He was to go to the station to make inquiries. Old John was interrogated, and stated that he had seen Mr. Melhuish go out “close upon five o’clock.”

As Ferguson told Garland, he had found out who were in the room after he left. Both Soady and Lang had visited it. Soady it was impossible to suspect; he was always in ample funds. Suspicion lay between Lang and Melhuish, with a great preponderance against the latter.

There was nothing to show how the desk had been opened, for Melhuish had taken the chisel with him, dropping it out of the carriage window when some ten miles from St. Mary’s.

Ferguson determined to keep the affair of the desk to himself for a time at least; he would see what he could find out before he spoke of it. Perhaps it would be as well to see Lang.

The first form crowded into their room at the close of prayers; they were allowed to sit up an hour later than the others. The one subject of conversation was Melhuish’s flight.

Ferguson did not take much part in the conversation, but pretended to busy himself with his accounts. Soon he looked up, and said quietly to Lang, who was standing near, “I say, Lang, you can’t give me a half-sov. for some silver, I suppose? These subscriptions load up one’s desk tremendously!”

“Yes, I can do it for you.”

He gave Ferguson the half-sovereign he had received from Melhuish, which the treasurer pocketed. When Lang had turned away he examined it carefully.

It was a marked coin; there was a minute dot just behind the Queen’s head.

Ferguson scarcely knew what to think. At this moment Garland came back; he had seen the booking-clerk, who remembered distinctly giving a ticket to Melhuish, who had paid for it in silver. There was no silver gone from the football money; the evidence, so far as it was of any value, seemed to point away from the runaway.

“What are you going to do?” whispered Garland.

“Tell the Doctor; I can’t get any further by myself. I’ve found out where some of the money is, at any rate.”

“Who has it?”

“Lang.”

“Shall you tell the Doctor that?”

“Yes, I shall. I don’t want to get any fellow into a row, but I don’t mean to lie under suspicion of being a treasurer who does not look after his treasure. It’s for Lang to clear himself; I dare say he will be able to. I suspect Melhuish.”

That same night, before going to bed, Ferguson saw the Doctor, and told his story. Dr. Fellowes looked very grave.

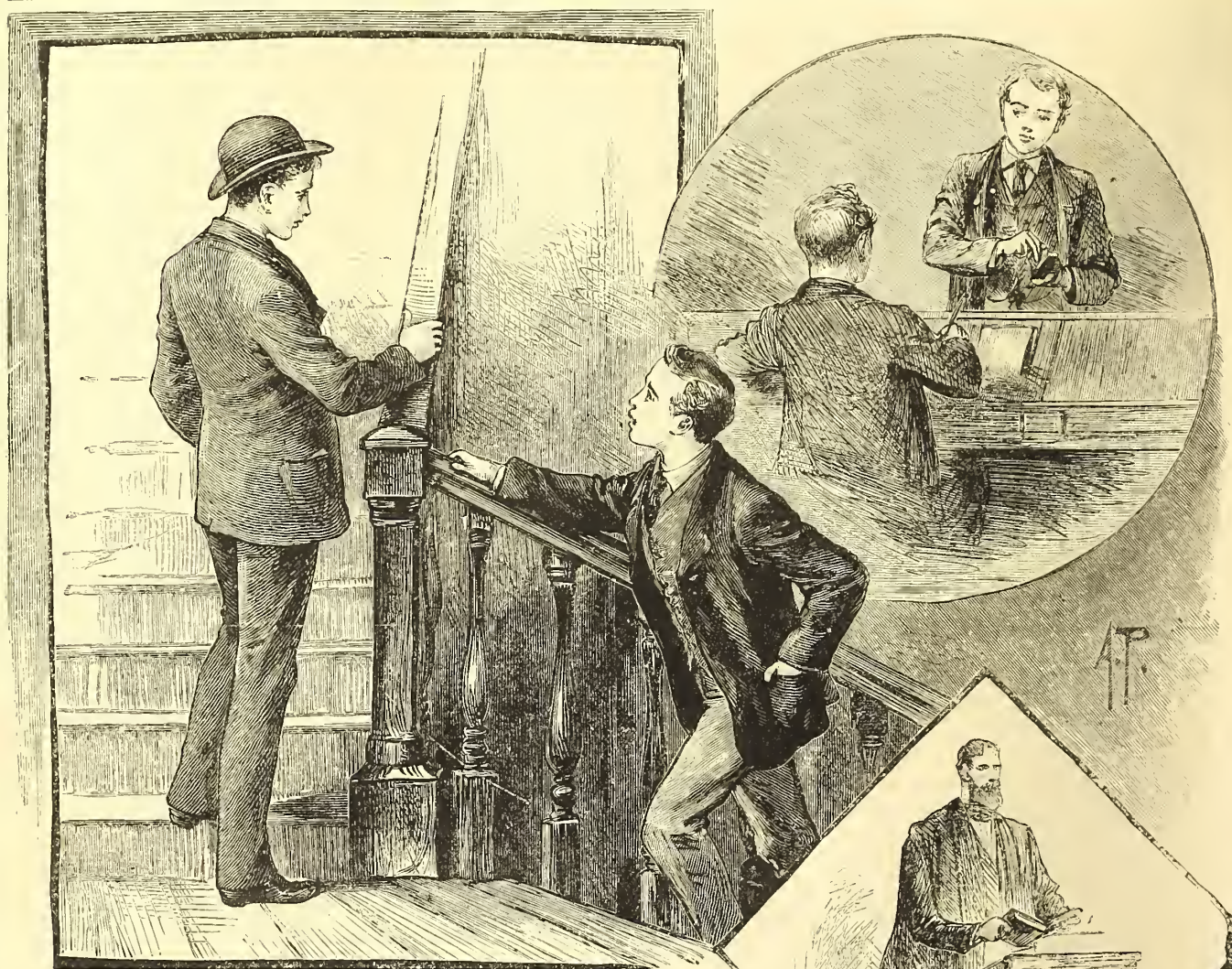
“The inference certainly is that Melhuish is the guilty party,” he said. “But we must not be too hasty. Don’t say a word of this affair to any of the boys, it is best kept quiet. I will see Lang myself. Send him to me.”

Ferguson put a bold face on it, and delivered his message just as he was going upstairs.

“What’s he want?” asked Lang.

But Ferguson pretended not to hear. Lang went in, puzzled as to the cause of the summons, but taking it for granted it was for something disagreeable, for he knew he had been getting more and more behind in his examination work, out of sheer despair of getting through.

Dr. Fellowes, though a good scholar and upright man, was not in all respects



"Delivered his message just as he was going upstairs."

an ideal schoolmaster. He was of a suspicious turn of mind, and he was of an unsympathetic nature. Now that Lang was once more under his suspicion his mind at once travelled back to the time when Simpson lost his money, and it was discovered that Lang was the only boy in the Rummage-room during the time the theft took place. Moreover, Lang had denied that he was there—or at least had not confessed he was when asked.

"Lang, do you recollect the last occasion when I had to send for you?"

"Yes, sir."

He remembered it only too well.

"It is a very serious thing that on this occasion the subject is of the same nature."

Lang looked up quickly.

"There has been some more money taken; this time under circumstances that leave no doubt as to its being a theft. But the money stolen was marked by the owner, and now I want you to account for the fact that part of it has been traced to you."

"To me, sir? I haven't heard a word about it!"

"Possibly not. I don't accuse you, I only want to know how you obtained the half-sovereign which you gave Ferguson."

"Melhuish gave it me, sir, this afternoon, just before he ran away."

"Ah, yes! I've not much doubt that is the fact. I wish I could say I was quite sure of it; but you must remember you

deceived me once, and now you are reaping the consequences. Were you on good terms with Melhuish?"

"We had a little quarrel the day before yesterday, sir, but we made it up in a sort of way."

"H'm! Is that half-sovereign all the money he gave you?"

"He didn't give it me; I gave him ten shillings for it."

Lang spoke almost insolently; the calm, hard way in which the Doctor spoke of the whole affair was infinitely annoying to him. He was as innocent as Garland, and yet the Doctor seemed to think it was quite an even chance whether he were a thief or not.

"Do you think I took it?" asked Lang, imperatively.

"No; I won't go so far as that," replied the Doctor; "but if you will look at the matter calmly you will see that my hesitation is not altogether unwarranted. Yet I have no right to accuse you on such slender evidence, and I have no wish to be unjust. Unless you mention this matter yourself no one else will; you will be quite unsuspected unless you bring it on yourself."

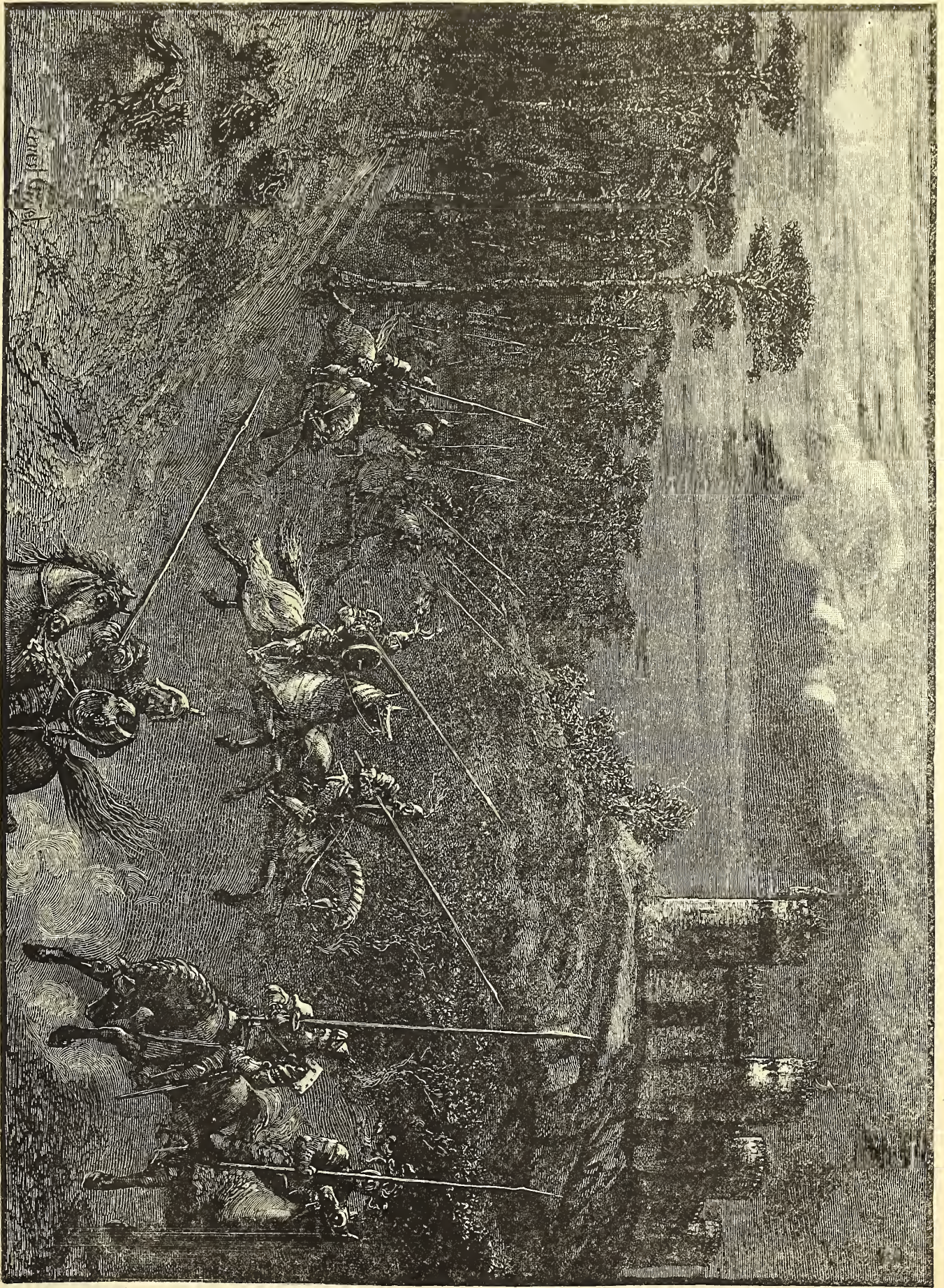
Lang went to bed. For half an hour he had a great mind to follow Melhuish's example and run away from a school where he was treated so unjustly. Twice had he come under suspicion of a crime which he had never committed. His

father would never let him stay under a master like Fellowes if he knew the truth.

He refused to speak to Ferguson, who on his side did not like to take the first step. Lang was ignorant that Garland knew anything about it, and the latter had asked Ferguson to keep his name out of the affair. Garland believed Lang innocent and Melhuish guilty; indeed, who would not have done so? More than that, Garland determined to show Lang more than usual kindness, and then let him know he was aware of the whole affair; that would be a proof of his belief in his innocence.

The Doctor, though somewhat harsh in his treatment of Lang, behaved generously as regards the loss the football club had sustained. In order to keep the theft unknown, and so maintain the character of the school, he himself gave Ferguson the three pounds ten that had been abstracted, so that the new balls were bought after all.

(To be continued.)



JOCK O' THE MILL.

A TALE OF THE BORDER.

As every one knows, it was not so many centuries ago that the borderland between England and Scotland was considered fair hunting-ground for those who lived within reasonable distance of the Tweed. It was claimed by various lords who probably had small right to it, but who tried to enforce their rights with little regard to the justice of their claims.

After Chevy Chase the ill-feeling between the border clans became still more bitter, and involved the unhappy people who lived in the neighbourhood in still greater misery than before. The raids of the English were revenged by the Scots, and *vice versa*, and numberless petty encounters took place of which neither history nor ballad takes any note.

The Baron of Melton was one of the chief raiders. In fact, in spite of his title, he was no better than a common robber. His misdeeds were connived at by the English Government because he was useful in checking the advance of the Scots, of whose inroads into England there was a constant dread. So the baron was permitted to enrich himself as well as he could from the plunder of his neighbours.

There was, however, a thorn in the baron's side. Jock o' the Mill was a man of no account socially speaking. He had been a plain miller till his mill had been plundered and his cattle driven off by the baron. He had been molested several times before, but had managed to carry on his business in spite of it. That last attack, however, convinced him that it was useless to try and continue his peaceable trade whilst such men as the baron were within a short night's ride.

So he gave up his grinding and turned his mill into the nearest approach to a fortress that he could contrive. The situation greatly favoured him. By building a barricade across a narrow path which ran along the side of the precipitous rocky bank of the river which fed his mill he was able to render it impregnable on one side. By raising the dam of his mill-stream he was able to flood the marshy ground around him, so that on the whole he was well defended. Add to this that the approaches to the mill, with the exception of the barricaded path, were through a tangled glen of which scarcely any one knew the secrets.

It was not long before Jock had a following of nearly a score men who had suffered from the incursions of the English and were eager for revenge. They made occasional expeditions on their own account as they grew stronger, and soon became known through the country-side. They made no attempt to attack the large castles and strongholds of the English, but confined themselves to exploits which were not hazardous.

Jock's chief desire was to revenge himself on the baron, yet he durst not attack him openly. But every now and then a shower of arrows would drop into the castle when least expected, wounding or perhaps killing a man or two, and the baron guessed rightly that Jock was at

the bottom of it, though no trace of any one could be found. More than once the baron's march home had been annoyed and impeded by sudden and rapid attacks, the enemy disappearing almost before they were seen.

All this was very annoying to the baron, who was a powerful lord, able to muster a hundred men-at-arms at need. He determined to rout out Jock and set his mill on fire, disposing of him once for all. So with fifty men he marched to the mill one dark night.

That was the most disastrous expedition he had ever made. He was ignorant of the existence of the barricade, so went steadily forward until it was reached. Then trouble ensued. The hinder riders pressed on those in front; one horse went over the precipice, not without noise; Jock's sentinels were aware of something going on and hastened to give the alarm. The attacking party soon found boulders rolling down on their heads; the confusion became still worse. By the time they regained a place of safety their numbers were reduced by nearly a third.

It can easily be imagined that the baron did not intend to sit down idle under this rebuff. He vowed the most terrific revenge. But he was wise enough to see he must be more cautious next time. Jock was not an enemy to be despised.

So the baron dispatched some spies, who were to discover the way down the glen so as to avoid the path along the hillside. But the spies were singularly unsuccessful in their search. The fact was that the first had been caught and killed on the spot, and the rest saw that to venture into the glen was certain death, for Jock was now on the alert.

But the baron, suspecting that cowardice was at the bottom of their reports, gave the last-comer, a hind named Pierce, a taste of his heavy hand and sent him out again, vowing to hang him if he came back without certain news of the approaches to the mill.

It was a week before he returned. The baron had almost given him up.

"Have you succeeded?" asked his lord, imperiously.

"I have penetrated even to the mill itself. I know every approach," replied Pierce, humbly.

"Good for you you do," said the baron, "or your bones would soon be whitening! Lead the way to night, and tell the men-at-arms to prepare. There is room for horses?"

"In single file through the glen, but there is open space enough close to the mill."

"That will do," said the baron.

When night fell the little army sallied forth. Pierce rode in front to lead the way, promoted for the time to the dignity of a horse. The baron followed with his company, leaving those on foot to make the best of their way in the rear. He knew the ground would soon be so difficult that they would overtake the horsemen.

The journey was made without mishap. By four o'clock they were at the head of

the glen. The moon was low on the horizon, but in the east were some signs of dawn.

They plunged into the dark wood, following closely at the heels of Pierce.

"I don't quite like this," said the baron, as his steed stumbled down the narrow path.

"It will be better soon," said Pierce.

It certainly was, and progress became more easy than they anticipated. But there soon came a check. The horses sank rather deep into the miry ground and the baron halted.

"Is there no way round this quag?" he asked. "We shall sink over our heads in this, by the look."

Pierce slipped off his horse.

"There is a path if you will follow me," he replied. He led his horse straight on. The baron tried to follow. Then Pierce's horse began to sink; he made desperate struggles, but got deeper and deeper. Pierce, however, did not stay to help him out, but, leaping lightly from boulder to rushuft, was quickly out of reach.

It was hopeless to try and follow him. There was a bog on each side of the path, and the floundering horse blocked the way and helped to obscure the proper stepping-places, even had the men known them. The archers were in the rear, ignorant of what had happened, so that Pierce made his escape without even risking a scratch.

It was evident the baron was betrayed. He gave orders for an immediate retreat. But it was not to be ended without interference. From all sides there soon came a galling shower of arrows. The horse-men could do nothing amongst the trees, and the footmen and archers were at a terrible disadvantage fighting against invisible foes and ignorant of the ground. By the time they emerged from the glen half their number were either killed or wounded, amongst the latter the baron himself. Mocking shouts greeted them as they left the wood, Pierce's voice being specially distinct.

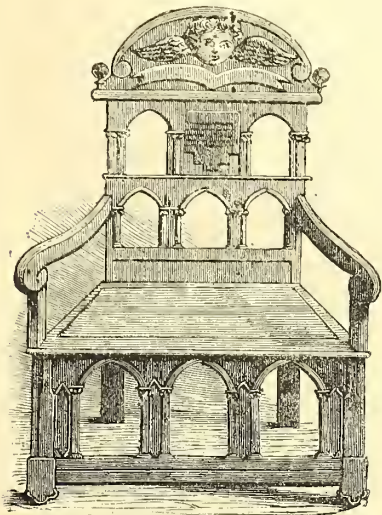
The explanation of the ambush is easy. Pierce was tired of the baron's severities, and when he was threatened with hanging unless he was successful in his reconnoitre, thought that the simplest way would be to turn traitor at once and make his neck safe. He was warmly welcomed by Jock and persuaded to return and lead the tyrannical baron into the glen. He was made complete master of the intricacies of the bogs, as the event showed, and had the satisfaction of seeing his stratagem successful.

Jock's desire was accomplished. He had not anticipated so easy a victory. He knew, however, that the baron must ultimately be too strong for him, so he and his companions left the neighbourhood secretly and joined the Scottish king's army. So that when the baron did at last penetrate to the mill he found no one there on whom to wreak his vengeance.

However, he burnt the mill to the ground, and tried to persuade himself he had gained a victory.

THE SEA KINGS OF OLD ENGLAND.

SIR FRANCIS DRAKE.



The Chair from the Golden Hind.

THE first to discover the mainland of America was Sebastian Cabot; the first to take his ship round the globe was Francis Drake. In each case, however, the honour is due to a freak of fortune. The Genoese Columbus only missed the mainland by resting content with the West Indies; the Portuguese Magellan only missed the circuit by quarrelling with the King of Zebu and meeting his death in the Philippines.

Magellan—or rather Magalliaens, for so his name should be spelt—left San Lucar on September 20th, 1519, in command of a Spanish expedition. Reaching Rio Janeiro, he coasted down to Port San Julian, and there spent the winter—May to September—of 1520. A dangerous mutiny then broke out on the part of the officers under his command, who, as in Cabot's case, were jealous of one who was not their countryman. Whereas, however, Cabot put his chief mutineers ashore, Magellan stooped to assassination.

Port San Julian was left in the middle of October; and on the twenty-first of that month, now famous for ever as the day of Trafalgar, Magellan discovered and entered the straits that bear his name. For a month and seven days, during which one of his ships deserted him, Magellan beat through the straits, and on the 28th of November first spread his sails on the Pacific. Sailing right across it, he reached the Philippines after a four months' run, and at Matan he received his death from the blow of a lance. One of the ships was burnt, one was taken by the Portuguese, and the other, the *Vittoria*, under Sebastian del Cano, crossed the Indian Ocean, doubled the Cape of Good Hope, and completed the first circumnavigation in three years and a fortnight.

Of Drake's early life we gave a sketch in our first volume, and with his share in the defeat of the Armada we dealt in the fourth. It was during his voyage in 1572 that he first caught sight of the Pacific. He himself commanded the *Pascha*, of seventy tons, and his brother John had charge of the *Swanne*, of twenty-five. The united crews amounted to seventy-three, and although a third of these were lost, he attacked Nombre de Dios, and other towns on the isthmus, seized the mules from the Mexican mines, and captured several Spanish vessels, the smallest of which was larger than his largest ship.

"After travelling certain days," says the old account, "we came to the height of the

desired hill (lying east and west like a ridge between the two seas) about ten of the clock. And here the chiefest of the Cimarrones took our captain by the hand and prayed him to follow him. Here was that goodly and great high tree, in which they had cut and made divers steps to ascend near to the top, where they had made a convenient bower, wherein ten or twelve men might easily sit; and from thence we might see the Atlantic Ocean we came from, and the South Atlantic so much desired. South and north of this tree they had felled certain trees that the prospect might be clearer.

"After our captain had ascended to this bower with the chief Cimarrone, and having, as it pleased God at this time, by reason of the breeze, a very fair day, had seen that sea of which he had heard such golden reports, he besought Almighty God of His goodness to give him life and leave to sail once in an English ship in that sea. And then, calling up all the rest of our men, acquainted John Oxenham especially with this his petition and purpose, if it would please God to grant him that happiness; who, understanding it, presently protested, that unless our captain did beat him from his company, he would follow him by God's grace."

Drake returned to England in 1573, and with three frigates served under Essex in Ireland. Oxenham, who by turns had been soldier, sailor, and sea cook, got tired of waiting, and in 1575 started for the isthmus in a vessel of his own. Landing on the north side of Darien he drew his ship aground in a creek and hid her with boughs. He burned his provisions and great guns, and with two small pieces of ordnance advanced for over thirty miles into the interior till he struck a river running to the south. On this river he built a pinnace forty-five feet in the keel and embarked in her on the South Sea—the first Englishman to reach it.

He took some Spanish prizes, the gold ship from Quito and the silver ship from Lima, but foolishly set them adrift near his hiding-place. The result was that the Spaniards were led to the river, which had three months. Some feathers came floating down one of them, showing that fowls were being plucked on its banks. The English were thus found and attacked, the pinnace and the hidden ship were both captured, and Oxenham was taken prisoner, and shortly afterwards hanged at Lima.

Meanwhile Drake had returned from Ireland, and resumed his preparations for the passage through the Straits of Magellan. His crews consisted of one hundred and sixty-four men, "gentlemen and sailors," and his ships were the *Pelican* of 120, the *Elizabeth* of 80, the *Swan* of 50, the *Marygold* of 30, and the *Christopher* of 15 tons. With this pigny fleet did he propose to sail round the world and dare the serious perils that had been magnified tenfold by the interested Spaniards. In these days of five thousand ton Aravas built to run round the globe in seventy-eight days, we are apt to forget the seaworthy cockleshells in which our fathers faced the waves. All honour to the tiny *Pelican*—the fore-runner of our mighty modern liners, one of which would take seventeen times the tonnage of Drake's entire fleet—as on the 13th of December, 1577, she led the way out from Plymouth for "Alexandria," *alias* the wide Pacific!

With many minor adventures Drake reached Port San Julian on June 20th, and with three ships left that "accursed port" on August 17th. On the 20th they made Cape de las Virgenes, entered the Straits of Magellan, and on the 24th anchored ninety miles within them. Here Drake changed the name of his ship from the *Pelican* to the *Golden*

Hind, "out of compliment to Sir Christopher Hatton," of Stoke Pogis, but why or wherefore is not quite clear.

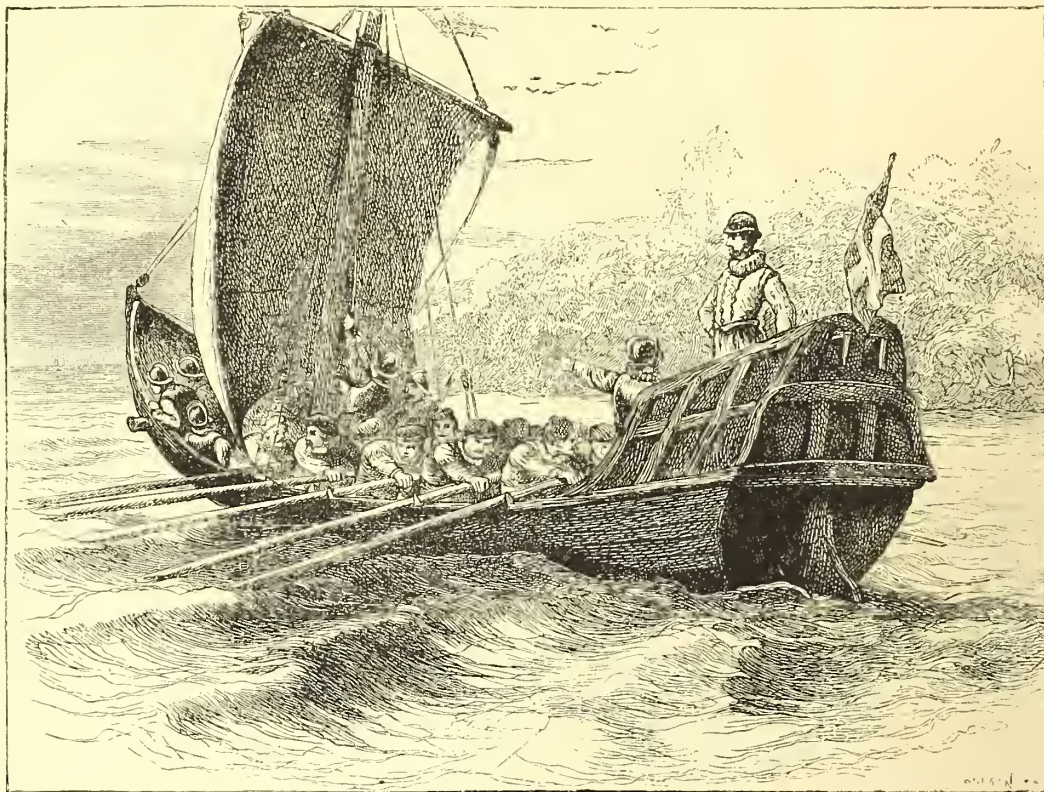
On the 6th of September he entered the Pacific, the fourth who had got through. Magellan had discovered the passage in 1520. Loyasa had been through in 1526, Ladrilleros had surveyed it in 1558, and Drake was the fourth to pass. This he did in twelve days, which, as compared with the weeks spent by the Spaniards, speaks volumes for his skill or good fortune.

On the 30th of September the *Marygold* was lost, and on the 7th of October the *Elizabeth* parted company, and failing to fall in again with the admiral, made the eastward passage and returned home. Drake was driven southward to Tierra del Fuego, and afterwards lost eight men in the sloop. The sloop regained the straits, and steering eastwards, reached Port San Julian and then Rio de la Plata, where six of the eight men, wandering in quest of food, were attacked by savages. Four were made prisoners, and two escaped, closely pursued. The four survivors, all of whom were hurt, rowed to a small island, where two of them died, and the sloop was dashed to pieces in a storm. The two survivors at last went to sea on a plank ten feet long, and after three days and two nights reached the mainland. One of them overdrank himself on the fresh water and died; and Peter Carden, the sole survivor, after many years' residence with the Brazilian savages, and captivity among the Portuguese of Bahia de Todos los Santos, succeeded in regaining his native country, and was duly introduced to and rewarded by Queen Bess, as fully set forth in Purchas.

Drake was driven down to 56°, and on the 28th of October he discovered and anchored at Cape Horn, nearly forty years before Schouten and Le Maire bestowed on it the appellation it now bears. Drake's name for the islands round the Horn was the *Elizabethides*, which fortunately soon became defunct. The whole region of South America had been labelled by the Spaniards *Terra Incognita*. Drake took upon himself to call it *Terra nunc bene cognita*, and as such it appears on his maps.

Drake then steered northwards. At Valparaiso, then inhabited by nine families, he took the Grand Captain of the South, and at Arica, then inhabited by twenty families, they captured several ships, in one of which were fifty-seven brickbats of silver, each weighing twenty pounds. At Callao he surprised seventeen Spanish vessels, and thence he started in chase of the *Cacafuego*, and came up with her off Cape Francisco. She held twenty-six tons of silver, thirteen chests of rials of plate, and eighty pounds of gold, besides diamonds and gems of lesser value.

He made his way up to Nicaragua; thence coasting along, he reached Port San Francisco in California, which he named New Albion, and thence he set out on his perilous voyage across the Indian Ocean, and home round the Cape of Good Hope. He left the *Moluccas* on the 9th of November, and was nearly wrecked on a reef near Celebes on the 9th of January, 1580. Java was left on the 26th of February, the Cape of Good Hope passed on the 15th of June, and on the 26th of September, after a voyage of two years and ten months, the *Golden Hind* cast anchor in Plymouth Sound. On the 4th of April, 1581, Queen Elizabeth went in state to dine on board the *Golden Hind*, then lying at Deptford, where by the Queen's command the famous ship remained for years until at last it rotted away, and out of what was left of its "carcasse" was made the chair now in the Bodleian, of which we give a sketch.



Oxenham in his Pinnacle on the Pacific.



In 1585, Drake, with Frobisher under him as vice-admiral and Carlile as lieutenant-general, was sent to attack the West Indies. On New Year's Day they captured San Domingo, and then, after cruising about the gulf, dismantling many fortresses, the squadron sailed for Florida, and took off the survivors of an unfortunate colony sent out by Raleigh in the preceding year. In 1587 Drake sailed with thirty ships to the coast of Spain, and hearing from a Dutchman that a fleet was lying at Cadiz ready to sail for Lisbon with provisions and ammunition for the Armada, immediately made his way there, and in the course of one day and two nights destroyed ten thousand tons of shipping destined for our invasion. Between Cadiz and St. Vincent he captured a hundred vessels, and then sailed off to intercept the San Felipe, a Portuguese carrack from the West Indies. Before he could reach her track his provisions ran short, but partly by promises and partly by threats he kept his men together, and soon had the satisfaction of carrying home the richest prize that had yet been met with on the seas.

The next year came the Armada, the story of which, as it was given in our part for August, 1882, we need not here re-tell. Of Drake's part—the principal part—in the defeat of the Spaniards it must suffice us here to say that it was gallantly and successfully performed. During one day his ship received forty shot-holes!

Hitherto Drake had had supreme command in his long sea expeditions, and fortune had ever followed him; henceforth he was to share command, and fortune quit him. In 1589 he went with Norris to restore Don Antonio of Portugal; but a dispute arose between the chiefs of the expedition and it returned without doing anything. In the year 1595 he started on his last expedition to the West Indies in company with Sir John Hawkins, the main object of the expedition being to take possession of the treasure at Panama.

One of the ships, the *Francis*, fell into the hands of the enemy, who thus became acquainted with the plans, and prepared to give



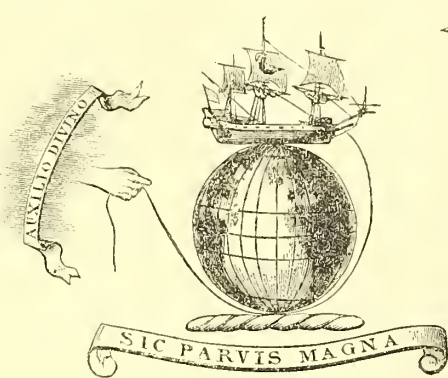
Drake showing Queen Elizabeth's picture to the Californians.

the English a suitable reception. Hawkins was so much mortified at the disaster that he died of combined grief and disease before Porto Rico. On the evening he died a shot from the town penetrated the cabin where the officers were at supper, knocked the stool on which Drake sat from under him, killed Sir Nicholas Clifford, and mortally wounded Brute Browne. In the morning the assault was delivered and the town captured; but the treasure had been carried off, and the victory proved a barren one. Santa Martha and Nombre de Dios were also taken, or rather found abandoned to the assailants, and then, on the 29th of December, Baskerville started with seven hundred and fifty men on his at-

tempt to cut his way through the Isthmus of Panama. He advanced halfway and then retreated, and returned depressed and disheartened, to the ships.

This was the crowning disappointment of the expedition, and it threw Drake into a fever, of which three weeks afterwards he died off Porto Bello at four o'clock in the morning. It was the 28th of January, 1595, and Drake was in his fifty-first year.

He lived by the sea, died on it, and was buried in it, deeply lamented by the country whose maritime power and reputation he had advanced more than any of his predecessors. His name will live as long as the world he encompassed.



Drake's Crest.

THE ORIGINAL ROBINSON CRUSOE.

It is usually stated and commonly believed that the world-renowned romance of Robinson Crusoe, by Defoe, was suggested by the story of the sojourn of a Scottish sailor, Alexander Selkirk, on the island of Juan Fernandez. Captain Woodes Rogers, of the Duke frigate, found him on the island, and received the relation from his own lips. Selkirk had been master of the Cinque Ports, commanded by Captain Stradling, a ship that came to Juan Fernandez with Captain Dampier in 1703. On the recommendation of Dampier, Selkirk was made second mate of the Duke—a honourable recompense for his cruel abandonment on the island by his former chief, Captain Stradling. The Duke was one of two privateers fitted out by Bristol merchants, the Duke commanded by Captain Woodes Rogers, and the Duchess by a Captain Cook. The celebrated navigator, Captain Dampier, accompanied this expedition merely as pilot, although during the voyage the skill and experience of the veteran seaman often proved of vast use to the younger captains. In his "Voyage Round the World," Captain Dampier gives an account of a solitary man left on the island of Juan Fernandez, where he remained above three years. He was left there in 1681, and released in 1684, several years before Alexander Selkirk was heard of. The details are perfectly authentic, for Dampier was in the ship which left him in 1681, and which found him in 1684; and Dampier, during a later voyage, commanded one of the two ships, the other of which was commanded by Captain Stradling, the tyrannical chief who left Selkirk on the island in 1704, and he was pilot of the Duke privateer, Captain Woodes Rogers, which took off Selkirk, after his solitary exile of four years and four months, in 1709. Dampier knew everything about Selkirk's case, but in his earlier voyage he describes this provisions abandonment of a solitary man, and his stay for three years on the same island. Here is the narrative as given in his book.

"The nineteenth day (March, 1683), when we looked out in the morning, we saw a ship to the southward of us, coming with all the sail she could make after us. We lay muzzled, to let her come up with us, for we supposed her to be a Spanish ship, come from

Baldivia, bound to Lima, we being now to the northward of Baldivia, and this being the time of the year when ships that trade thence to Baldivia return home. They had the same opinion of us, and therefore made sure to take us; but coming nearer we both found our mistakes. This proved to be one Captain Eaton, in a ship sent purposely from London for the South Seas. We hailed each other, and the captain came on board and told us of his actions on the coast of Brazil and in the River Plate. He met Captain Swan (one that came from England to trade here) at the east entrance into the Straits of Magellan, and they accompanied each other through the straits, and were separated after they were through by the storm before mentioned. Both we and Captain Eaton being bound for John Fernando's Isle, we kept company, and we spared him bread and beef, and he spared us water, which he took in as he passed through the straits.

"March 22nd, 1684, we came in sight of the island, and the next day got in and anchored in a bay at the south end of the island. We presently got out our canoe, and went ashore to seek for a Moskito Indian, whom we left here when we were chased hence by three Spanish ships in the year 1681.

"This Indian lived here alone above three years, and although he was several times sought after by the Spaniards, who knew he was left on the island, yet they could never find him. He was in the woods hunting for goats, when Captain Watlin drew off his men, and the ship was under sail before he came back to shore. He had with him his gun and a knife, with a small horn of powder and a few shot, which, being spent, he contrived a way, by notching his knife, to saw the barrel of his gun into small pieces, where-with he made harpoons, lances, hooks, and a long knife, heating the pieces first in the fire, which he struck with his gun-flint and a piece of the barrel of his gun, which he hardened, having learnt to do that among the English. The hot pieces of iron he would hammer out and bend as he pleased with stones, and saw them with his jagged knife, or grind them to an edge by long labour, and hardened them to a good temper.

"All this may seem strange to those that are not acquainted with the sagacity of the Indians, but it is no more than these Moskito men are accustomed to in their own country, where they make their own fishing and striking instruments, without either forge or anvil, though they spend a great deal of time about them.

"With such instruments as he made in that manner he got such provision as the island afforded—either goats or fish. He told us that at first he was forced to eat seal, which is very ordinary meat, before he had made hooks; but afterwards he never killed any seals but to make lines, cutting their skins into thongs. He had a little house, or hut, half a mile from the sea, which was lined with goatskin; his couch of sticks lying along about two feet distant from the ground, was spread with the same, and was all his bedding. He had no clothes left, having worn out those he brought from Watlin's ship, but only a skin about his waist. He saw our ship the day before we came to an anchor, and did believe we were English, and therefore killed three goats in the morning, before we came to an anchor, and dressed them with cabbage, to treat us when we came ashore. He came then to the seaside to congratulate our safe arrival, and when we landed a Moskito Indian, named Robin, first leapt ashore, and, running to his brother Moskito man, threw himself flat on his face at his feet, who, helping him up and embracing him, fell flat with his face on the ground at Robin's feet, and was by him taken up also. We stood with pleasure to behold the surprise and tenderness and solemnity of this interview, which was exceedingly affectionate on both sides; and when their ceremonies of civility were over, we also, that stood gazing at them, drew near, each of us embracing him we had found here, who was overjoyed to see so many of his old friends come hither, as he thought, purposely to fetch him. He was named Will, as the other was Robin. These were names given them by the English, for they have no names among themselves, and they take it as a great favour to be named by any of us, and will complain for want of it if we do not appoint them some name when they are with us, saying of themselves they are poor men, and have no name."

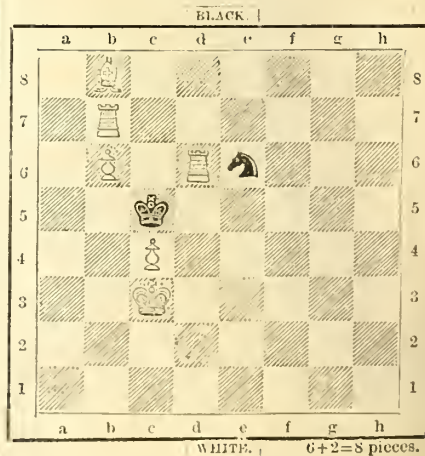
* From a capital New Book for Boys, "True Tales of Travel and Adventure," By Dr. Macaulay, Editor of the "Leisure Hour." (Hodder & Stoughton.)

CHESS.

(Continued from page 110.)

Problem No. 88.

By H. F. L. MEYER.



White to play, and mate in three (3) moves.

This problem is built upon the root position No. 40, page 103, Vol. V.

SOLUTION OF PROBLEM No. 84.

White has several moves to prolong the game, which are given here under *a*, *b*, *c*, and *d*.

- a.* 17. P-Kt 3. Kt x Kt (d. ch.)
 18. K-Kt 5. R-B 4 (ch.)
 19. K-Kt 4. R-B 3 (dis. ch.)
 20. K-R 4 (or *e*). R-B 5 (ch.)
 21. Q-Kt 4 (or *f*). R x Q (ch.)
 22. K-R 3. R x P (dbl. ch.)
 23. K-R 4. R-Kt3 (or R6) (ch.)
 24. K moves. B mates acc.

- (*c*) 20. K-Kt 5. Kt-B 2 (ch.)
 21. K-R 4. P-Kt 4 (ch.)
 22. K-R 5. R-R 3, mate.

- (*f*) 21. K-Kt 5. Kt-K 3 (ch.)
 22. K-R 5. P-Kt 3 (ch.)
 23. K-R 6. R-R 5 (ch.)
 24. P x R. B-K 6, mate.

- b.* 17. Kt-B 7. R x Kt.
 18. P-Kt 3. Kt-B 4 (ch.)
 19. K-Kt 5 (*g*). Kt-K 5 (ch.)
 20. K-R 4. R-B 5 (ch.)
 21. Q-Kt 4. R x Q (ch.)

22. K-R 3. R x P (dbl. ch.)
 23. K-R 4. R-R 6, mate.
 (*g*) 19. K-R 4. R-B 5 (ch.)
 and as under *a*.

- c.* 17. B-B 6. R x B.
 18. Q-Q 2 (*h*). Kt x Kt (dis. ch.)
 19. K-R 5. P-Kt 3 (ch.)
 20. K-Kt 5. R-B 4 (ch.) (or *i*)
 21. K-Kt 4. P-R 4 (ch.)
 22. K-R 3. R-B 6, mate.
 (*i*) Kt-B 2 (ch.)
 21. K x R. B-R 5 (ch.)
 22. Q-Kt 5. B x Q, mate.

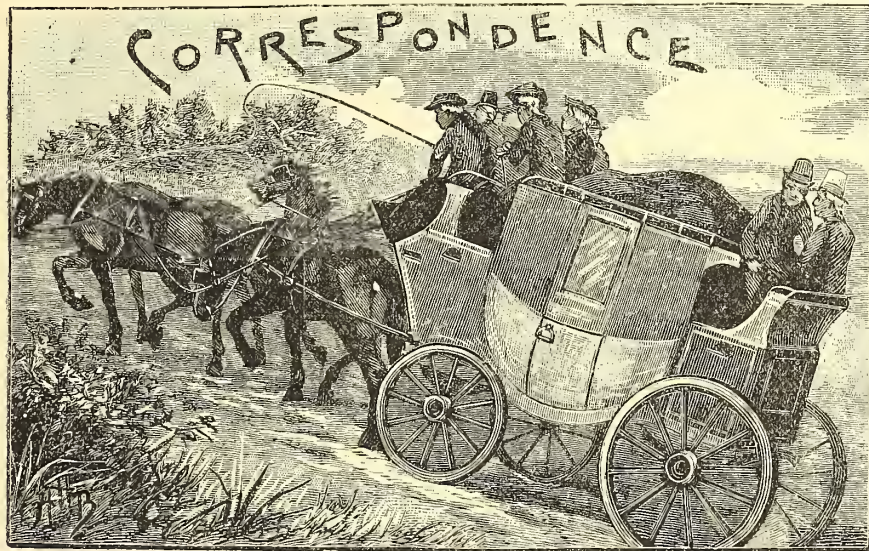
- (*h*) 18. P-Kt 3. Kt-Q 5 (dis. ch.)
 19. Kt-K 6. B x Kt (ch.)
 20. K-R 4 (*j*). R-R 3 (ch.)
 21. Q-R 5. Kt-B 6, mate.

- (*j*) 20. K-Kt 5. B-K 6 (ch.)
 21. K-R 4. R-R 3 (ch.)
 22. Q-R 5. Kt-B 6, mate.

- d.* 17. Q-Q 2. Kt x Kt (dis. ch.)
 18. K-R 5. P-Kt 3 (ch.)
 19. K-Kt 5. R-B 4 (ch.)
 20. K-Kt 4. P-R 4 (ch.)
 21. K-R 3. R-K R 4, mate.

To Chess Correspondents.

E. O. (Livorno).—Your game of 17 moves will now soon be published.



P. T. N. MOESVELD.—No foreigner can obtain a commission in our Navy unless he enters it before he is thirteen years of age, and has been previously naturalised.

ENGINEER.—We have no sympathy with English lads entering the combatant services of foreign powers. If you must fight, fight for your old country.

RAO.—The active principle in carbolic acid is not rendered inoperative by the acid being vaporised on a heated fire-shovel.

F. P.—For repairing a bicycle tyre use Prout's marine glue, price one penny per stick, obtainable from any india-rubber shop. There are many imitations of this preparation, some specially prepared for cycle work, and all obtainable from bicycle shops.

C. W. H.—If you read Professor Freeman's book on the English Constitution, published by Macmillan, you will know better than to ask such a question.

BEAVER.—1. The word cañon in "The Silver Cañon" is pronounced as if written "canyon." 2. Carlin-Sunday is so called because of the beanfeast that took place on that day; only the beans happened to be peas fried in butter. It is sometimes called Pea Sunday. It is the Sunday before Palm Sunday.

A MONTHLY SUBSCRIBER.—"Home, Sweet Home" was written by John Howard Payne, and was first sung in his drama of "The Maid of Milan." The music was written by Sir Henry Bishop.

A NIGGER.—1. We do not know of a guide to "the bones," nor of any music specially written for that instrument. The great secret is to waggle them furiously, and make as much noise as you can. 2. The "blackening" is simply powdered burnt cork.

FRANK.—Give your saddle a coat of soft-soap. It will stain it as agreeably and quickly as anything.

CIVIL SERVICE.—It is difficult to say. You have to give references before you are appointed, and the strictest inquiries are made as to your previous good character.

A LOVER OF KITES.—Mr. Poeock's book on "Kites" is out of print. You might get it through a second-hand bookseller. There is no other book specially on kites that we know of.

A YOUNG WELSHMAN.—Consult a lawyer; never apply to a layman for legal advice. The Married Woman's Property Act is the one you are in search of.

J. B. M.—The half-mile has been run in 1min. 55¹/₂sec. by L. E. Myers. The best English record is W. G. George's—1min. 57sec.

T. F. M.—The "Fifth Form at St. Dominic's" was in the fourth volume. It began on October 1st, 1881, and ran for thirty-eight weeks.

H. S. BOULT.—Beehives can be obtained from Messrs. Neighbour, of Holborn, and other firms. See advertisement: ists in gardening papers.

T. H.—Appointments in the Colonies are either made through the Colonial Office, in which case the examinations take place here under ordinary Civil Service regulations, or through the Colonial Governments, when the examinations take place in the colony.

J.M.—The present inhabitants of New Zealand are, we suppose, called New Zealanders; the natives they found there on arrival were the Maories. In Stewart Island, however, there is an older race.

EVACUATE.—If a young lady were to conclude a letter to us with "and believe me to remain, yours truly," we should in reply ask her to believe that we remained yours truly. In fact, there is no safer rule than to answer a letter in the terms and spirit in which it is written.

WONDERING HOW.—There can be no doubt that the voyage would do the lad good, but we should never advise a boy to be apprenticed unless it was intended that he should follow the sea as a profession. The earlier part of a sailor's life is always the most objectionable.

OLD WOMAN.—1. If you yourself keep a good-sized tomcat, and treat him well, he will very soon perceive the annoyance you suffer from the cats of your neighbours, and make it his business to clear them off the premises at all hours in double-quick-time. 2. The only profession in which a knowledge of Hebrew would be useful would appear to be that of the ministry. 3. For the scholarships at the Universities you should consult the University calendars. 4. The question is too vague.

M. C. S.—You will find how to make ice cream in the April part for 1881.

W. WESTMORELAND.—Particulars as to Government appointments only hold good for the month of publication. The post you mention is no longer open to public competition. For all particulars apply either direct to the Admiralty or to the Civil Service Commissioners in Cannon Row. Full particulars as to the examinations for the Navy are given in the quarterly Navy List, published by John Murray, Albemarle Street, but you can only trust the current number.

NESTOR.—Read our articles on the Bar in "Professions, and how to enter them," in July part for 1883.

YELLOWHAMMER.—We can but regret that any lad's friends should discourage his study of natural history on the ground that he is "now growing to be a man, and should be thinking of something better;" and you have our sympathy in your uphill struggle. Stick to your hobby as long as you can, work at it thoroughly and conscientiously, and if you cannot convert your friends you may at least convert their children, and save them from becoming the victims of such stupidity. The only book that would fulfil your requirements is Morris's "British Birds," or "Bree's Birds," each of which costs about three guineas. There are 322 species of birds reckoned to be British. Articles on entomology appear in all the volumes. See answer to B. DERBYSHIRE.

BRINTON.—The best lubricant for wood on wood is a mixture of milk and blacklead.

C. M. LAWTON.—Dr. Lankester's "Half-Hours with the Microscope" is a cheap book on the subject; but there are several shilling books issued by the London publishers, and obtainable at most bookstalls or opticians.

MEM.—In our fifth volume we gave an article on the Pantagraph, and how to make and use it. Refer back.

E. H. H.—1. The pronunciation of Giaour is as nearly as possible that of Jower. 2. Your master should explain his meaning; he is more competent to do so than we are. 3. For fretwork machines you cannot do better than try Churchill.

PAGANINI.—It is a matter of taste. Some players prefer gut strings, others silk. We should say that nothing can equal a good gut string. The silk will stretch, but not to so great an extent as the gut; it will, however, wear fluently.

DISHEARTENED FIDDLER.—1. Leave the three notes alone till you can be practically shown how it is done. 2. If you lightly place your finger on the centre of the string you will get its octave. 3. The only plan is to get the A string correct, tune the second to it by chord or stopping, tune the fourth to the third in the same way, and then tune the first to the second. As the fourth stop and the next open string give the same note, you can easily check your tuning.

DUMBBELLS.—Dumbbells should never exceed two pounds in weight. If you want something heavier use Indian clubs. See our articles on Gymnastics in the third volume, and on Indian Clubs in the fourth.

X. K. C. and CALEDONIA.—We never offer criticisms on such contributions; you must judge for yourself, or get others to do so for you. It is not customary to pay for such compositions; the newspapers insert them gratuitously as far as the author is concerned, and in some cases even charge for them as advertisements.

H. H. S.—1. Try Oliver's "Botany," or the manuals by Henfrey, Balfour, etc. 2. We could fill the paper with an exchange if we were so minded, but have no intention of providing such a temptation to dishonesty. If you will get a number of the "Bazaar," or "Exchange and Mart," and see the regulations that are necessary to work the subject properly, you will understand our reasons for abstaining from it.

NEMO.—You must join the ranks of the volunteers and work up.

TOTA.—Apply to the Registrar of the University of London, Burlington Gardens, or the Registrar of Victoria University, Manchester, for particulars of examinations for the degree you desire to go in for.

E. M. WILLIAMS.—We thank you for the detailed information, but as it will probably be out of date in a few months, and our readers forget that examination regulations given in back volumes may have been since superseded, we are unable to use it. A copy of the quarterly Navy List will always give them the latest particulars.

HERBERT.—1. There are several books of family crests obtainable from heraldic stationers. Being in the trade you would get one easiest through your master. 2. Bleach ivory under glass, or wash it in a solution of an ounce of nitric acid in ten ounces of water, brushed on with vigour and thoroughly rinsed off in clean water.

B. O. P.—Read the article again. It does not say "the Admiral of the Fleet is giving instructions". All the difficulties you raise were anticipated in the article. A hasty skim from title to tail-piece is not reading. It is a habit easy to acquire and difficult to lose, and only results in waste of time—to yourself and other people.

J. K. JOHNSON.—Queries as to the numbers and stations of lifeboats should be addressed to the Royal National Lifeboat Institution, John Street, Adelphi, and not to us.

T. M. L.—The Magyars are the Hungarians. The Transvaal stamps are all poorly printed. The one you sent was genuine.

X. Y. Z.—Indian-ink pricked into the skin is tattooing, and you will remain disfigured for life. You cannot get such marks out. See our article on Tattooing in No. 272.

PERSEVERANDO.—Shorthand is useful for everybody; there can be no question about that. Pitman's system is generally considered the best; those recently advertised are but modifications of it. The address is Paternoster Row.

S. EVERETT.—You can get fencing foils from all the cricket outfitters. They cost from six shillings to a guinea per pair; the blades alone are from eighteen-pence to half-a-crown each.

JACK OF HAZELDEAN.—The delay in publishing the results would be so increased that we could not adopt your suggestion. Coloured plates have to be prepared more than twelve months in advance.

J. BROWN.—Fluoric acid is what you mean, but the ovals are cut with the diamond. A two-cell battery would not be strong enough for an incandescent light.

DELORAIN.—Wash the fly in alcohol or spirits of turpentine, and when he is dry mount him in Canada balsam, which you can get from the nearest chemist.

DIET.—To make oatcake mix moderately fine oatmeal to a stiff paste with boiling water; roll it out thin, bake it in a slow oven, do not let it brown, and when it is done dry it before the fire.

FLAGS.—We have had a series of articles on Signals only recently. There was an article on Flags in the first weeks of October, 1882, and of October, 1883, and there was one on Storm Signals in No. 58.

A FOOTBALL PLAYER.—You may discover a cure for "a red nose not caused by drink" by applying to a doctor. We cannot tell you to what it should be assigned. We know nothing of urology, and never answer medical queries.

T. H. CHURCHER.—A book on ticket-writing is published by Messrs. Crosby Lockwood and Co., Stationers' Hall Court. Mix your colours with varnish.

YACHTIST.—You might get a good second-hand boat by advertising in "The Model Yachtsman." It is published in High Street, Hull, price eighteenpence per annum post free. It comes out on the first of the month, and costs a penny per number. You can get it in your neighbourhood of Mr. H. Butcher, 7, Bedford Terrace, Kensington.

DEVONTIAN.—Distilled water boils at 212° in the open air, but in a closed vessel you increase the pressure, and hence the 212° can be exceeded. From ignorance of this trifling fact your argument is a mere waste of time. A little knowledge is dangerous, even in a Devonian.

A WOULD-BE SAILOR BOY.—You will never get a situation on board ship unless you make personal application to the Mercantile Marine Office, to the owner, or to the captain, and the sooner you give up the idea the better.

COLONIC.—Emigration to Australia is now worked on the nomination principle. A colonist applies for a ticket to bring out his friend, and sends it over to this country, and then the fares are very low. Four pounds will take a young man, two pounds a young woman, to Sydney. To go to Queensland costs eight pounds, but young women are in demand there, and so can get out at one pound apiece. To New Zealand a young man can go for four pounds, a young woman can go for nothing. Be it understood this is only on nomination tickets, and the information only holds good for the month of publication. Apply direct to headquarters when you think of going. The New South Wales offices are at No. 5, Westminster Chambers, Victoria Street; the Queensland offices are at No. 1; the New Zealand offices are at No. 7.

C.—All that shipping of boys from quays and docks is now done away with. If you want a berth you must apply at the Mercantile Marine Office, which is a branch of the Board of Trade. Try Poplar or St. Katharine's Docks.

P. B.—1. Kennington Oval is ten and three-quarter acres. It is the property of the Duchy of Cornwall. 2. The "Daily News" first started on January 21st, 1846; the "Daily Telegraph" on June 20th, 1855; the BOY'S OWN PAPER on January 15th, 1879.

G. H.—The steeple is the whole thing, tower and all; the spire begins at the top of the tower. Many Nonconformist places of worship have steeples, and the saying you quote is a popular delusion. The old story of the tall boy whose mother intended him for the Church, and whose aunt thought she intended him for the steeple, might have put you on the right track.

FIDDLE JOE.—1. The best violin bows are those that have most spring, but they must not be too stiff. 2. The hairs are cleaned by washing in soap and water and thoroughly rinsing afterwards in clean water. 3. Mix together some vegetable black and gold size until it is as thick as cream, and give the violin-case a coat of it. It will dry in a very short time. Use a soft brush, or it will look streaky.

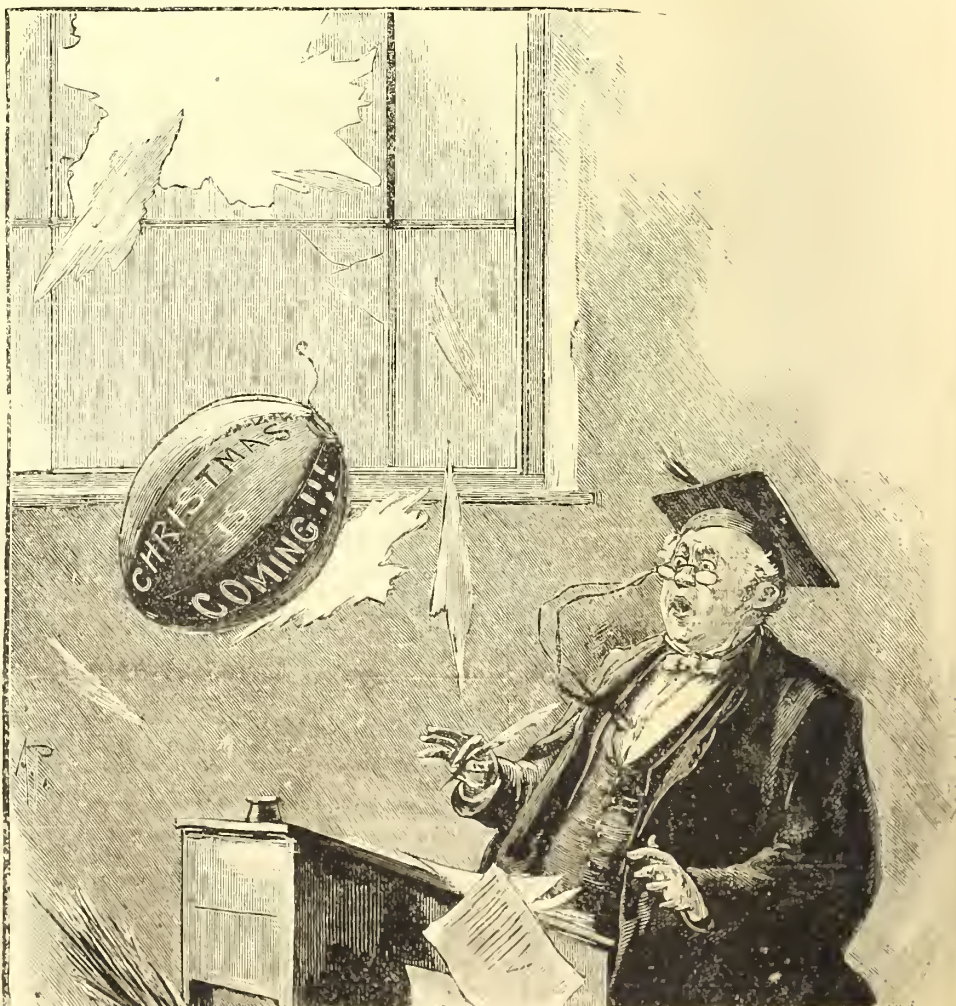
MKT. HARBOUR.—Surely, if you had knowledge enough to read the R., her Majesty's signature as standing for Regina, you might have detected in the I. the initial of Imperatrix—Queen of the United Kingdom and Empress of India.

THE "BOY'S OWN" CHRISTMAS NUMBER.

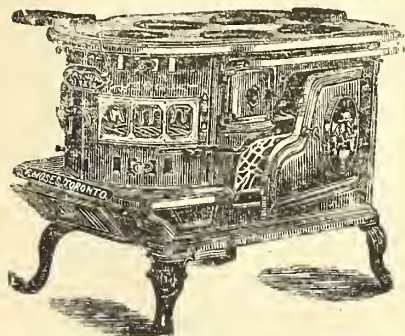
OUR Special CHRISTMAS NUMBER is now ready, price 6d., and may be had of all booksellers. Every reader of the B. O. P. should endeavour to secure a copy at once. It cannot be reprinted, and will NOT be included in the Annual Volume.

The Contents include the following stirring contributions:—

Breaking Up. By Somerville Glibney.
An Acting Proverb. By Paul Blake.
A Midnight Visitor. By Edmund Mitchell, M.A.
The First Day of the Season.
The Derelict Brig: a Tale of the North Country. By Dr. Gordon Stables, C.M., R.N.
"Catch me if you can!"
A Midnight Swim. By Robert Richardson, B.A.
The Middy's Plum Pudding; or, a Christmas Dinner on Board a Slave.
Christmas Matin Song. Words by Paul Blake. Music by Arthur Hindson.
Findings not Keepings: a Christmas Story. By F. L. Rowton.
"God rest you, Merry Gentlemen."
Winter Sports in Canada.
Christmas in a Tree-Stump. By Theodore Wood.
Fascinated by a Fakir. By James Cox, R.N.
Round the Christmas Fire. Roman Puzzles.
"Var da Vaigher" (Guide the Wanderer).
Home for the Holidays.
Bilk's Fortune. A Ghost Story. By T. B. Reed.
Chromatropes and Paper Fireworks.
A Race for a Christmas Cup. The Ice-Yachtsman's Dream. By W. J. Gordon.
Picture Plaiting.
"Follow my Leader!"
A Snowskate Race in Lapland.
Mirror Magic.
Our Christmas Penny Readings. In the Signal-Box: a Stationmaster's Story. By G. R. Sims.
The "Yule-Pan." An Adventure in the Shetland Isles. By Jessie M. E. Saxby.
Christmas round our Coast.
Crabbe's Practice. By A. Conan Doyle, M.B., C.M.
Yule-Tide Amusements.
A Storm in a Teacup.
Two Striking Experiments.
An Evening at Home.
The Obedient Cane.
Out in the Snow.
The Kaleidoscope, and How to Make it.
Christmas Fare.



Another Year's Test of the Combination Cook Stove



Has demonstrated the fact that it is superior to all others.

Each stove sold an advertisement, as the neighbors of the happy owner of the "Combination" discard the old and buy the perfect stove. See testimonials in August No.

F. MOSES, Patentee,
301 YONGE STREET, - - - TORONTO

NOTICE TO THE AFFECTED.

You will save Money, Time and Suffering by using

Norman's Electro-Curative Belts.

No Remedy is so Quick in its Action, or so Permanent in its Effect, and they cannot possibly do any harm.

Do not be Prejudiced, but give them a Fair Trial.

Consultation and Circular free.

A. NORMAN,
4 Queen Street East, - - - Toronto

MOTHERS!

Don't give your babies injurious medicine when they suffer from the effect of getting teeth. Why not use one of NORMAN'S ELECTRIC TEETHING NECKLACES, which will quiet and soothe the child without injuring it in the least. Price 50c.

What is Catarrh.

From the Mail (Can.) Dec. 15.

Catarrh is a mucopurulent discharge caused by the presence and development of the vegetable parasite ameba in the internal lining membrane of the nose. This parasite is only developed under favorable circumstances, and these are:—Morbid state of the blood, as the blighted corpuscle of urberle, the genu poison of syphilis, mercury, toxomica, from the retention of the effete matter of the skin, suppressed perspiration, badly ventilated sleeping apartments, and other poisons that are germinated in the blood. These poisons keep the internal lining membrane of the nose in a constant state of irritation, ever ready for the deposit of the seeds of these germs, which spread up the nostrils and down the fauces, or back of the throat, causing ulceration of the throat; up the eustachian tubes causing deafness; burrowing in the vocal cords, causing hoarseness; usurping the proper structure of the bronchial tubes, ending in pulmonary consumption and death.

Many attempts have been made to discover a cure for this distressing disease by the use of inhalants and other ingenious devices, but none of these treatments can do a particle of good until the parasites are either destroyed or removed from the mucous tissue.

Some time since a well-known physician of forty years' standing, after much experimenting, succeeded in discovering the necessary combination of ingredients which never fail in absolutely and permanently eradicating this horrible disease, whether standing for one year or forty years. Those who may be suffering from the above disease, should without delay, communicate with the business managers, Messrs. A. H. DIXON & SONS, 305 King St. West, Toronto, Canada, and enclose stamp for their treatise on Catarrh.

FRASER & SONS,

(Late Notman & Fraser)

Artistic Photographers.

Cabinets, \$3 per Doz.

41 KING ST. EAST, TORONTO.

Xmas Presents.

NEW CATALOGUE NOW READY

50 Per Cent. Reduction

On old Catalogue Prices.

\$25.



\$25.

Genuine Diamond, set in solid 15k. Gold.
Diamond size of cut—Ring made to fit.

CHAS. STARK,

52 CHURCH ST., TORONTO (Near King)

Importer, Wholesale and Retail Dealer in

Gold and Silver Watches, Gold and Silver Jewellery, Diamonds, Silverware, Etc.

Send address for our 120 page Catalogue, containing over 800 illustrations of all the latest and most elegant designs.

Annual Volumes, 1884

Boy's Own Annual	\$2 00
Girl's Own Annual	2 00
Sunday at Home	2 00
Leisure Hour	2 00
Good Words	2 25
Sunday Magazine	2 25
Cassell's Magazine	2 50
The Quiver	2 50
Chatterbox	1 00
Sunday	1 00
Our Darlings	1 00
Little Wide Awake	1 25
Little Folks	1 00

FOR SALE BY

JOHN YOUNG,
Upper Canada Tract Society,
102 YONGE STREET, TORONTO.

—1884-85—

XMAS CARDS

All with Scripture Texts or Sacred Verses.

It is now generally known that we are the Only House in Canada dealing exclusively in this special line of Xmas and New Year Cards.

SOLE AGENTS in the Dominion for the celebrated MILDWAY CARDS.

This year we have a larger assortment than ever. Complete Descriptive List now ready, and will be mailed free on application.

S. R. BRIGGS, - Toronto Willard Tract Repository

Works of D. L. Moody

The Way to God. A Series of Addresses on the Way of Salvation. Tinted covers 30c, limp cloth 50c., cloth boards 60c., cloth extra 90c.

Power from on High; or, The Secret of Success in Christian Life and Christian Work. (32nd Thousand). Tinted covers 30c, limp cloth 50c., cloth boards 60c., cloth extra 90c.

Addresses by D. L. Moody Delivered in England in 1874-5. (104th Thousand). Tinted covers 30c, limp cloth 50c., cloth boards 60c., cloth extra 90c.

Heaven: Its Hopes, its Inhabitants, its Riches, its Rewards (55th Thousand). Tinted covers 30c, limp cloth 50c., cloth boards 60c., cloth extra 90c.

Conversion, Service and Glory; being the 3 vols., The Way to God, Power from on High, and Heaven, in 1 vol. Bound in best cloth, Library style, \$1 75.

The Faithful Saying. A Series of Addresses delivered in America. (20th Thousand). Tinted covers 30c, limp cloth 50c., cloth boards 60c., cloth extra 90c.

Sovereign Grace: Its Source, its Nature, and its Effects With four Gospel Dialogues. (New). Tinted covers 35c., limp cloth 50c., cloth extra 90c.

Prevailing Prayer. A Series of Addresses on the Subject of Prayer. Tinted covers 35c., limp cloth 50c., cloth extra 90c.

"To the Work! to the Work!" Exhortations to Christians. Tinted covers 35c, limp cloth 50c., cloth extra 90c.

The Old Gospel and Other Addresses. Tinted covers 35c., limp cloth 50c.

Wonderous Love. Fifteen Addresses. Tinted covers 35c., cloth 70c., cloth extra 90c.

The Great Salvation. Sixteen Addresses. Tinted covers 35c., limp cloth 50c., cloth extra 90c.

The Second Coming of Christ. (38th Thousand) Tinted covers 12c., limp cloth 20c. Cheap edition for General Distribution, 70c. per doz.

Salvation for All Six Addresses recently delivered. Tinted covers 20c., cloth 35c.

Stand Up for Jesus. Five Addresses to Christian Workers. Tinted covers 20c., cloth 35c.

Daniel the Prophet. Seven Addresses. Tinted covers 20c., cloth 35c.

Full Assurance of Faith. Mr Moody's Address on Assurance. Tinted paper 12c., cloth 20c.

The Holy Spirit. Being two Addresses. 5c., or 50c. per doz.

'OUR DARLINGS.'

EDITED BY DR. BARNARDO.

One of the most attractive books for children, containing in addition to a Beautiful Colored Frontispiece and several charming Photo-lithographs, not less than

500 ENGRAVINGS,

Also, Interesting and Instructive Stories, and earnest Gospel teaching.

This volume is specially suitable as a gift book to children and young people, or as

A CHRISTMAS PRESENT.

Bound in delicately tinted boards, with three choice pictures on the front cover, only \$1.00; or in cloth, gilt edges, \$1.75.

S. R. BRIGGS,

Toronto Willard Tract Repository.

WHAT IS CATARRH?

[From the Toronto (Canada) "Mail."]

A New Treatment

FOR THE
RAPID AND
PERMANENT
CURE OF

CATARRH

to be had only
of
A. H. DIXON & SON

NO 305 KING ST. WEST. TORONTO, CANADA.

Catarrh is a muco-purulent discharge caused by the presence and development of the vegetable parasite amœba in the internal lining membrane of the nose. This parasite is only developed under favorable circumstances, and these are: Morbid state of the blood, as the blighted corpuscle of tubercle, the germ poison of syphilis, mercury, toxæmia, from the retention of the effeted matter of the skin, suppressed perspiration, badly ventilated sleeping apartments, and other poisons that are germinated in the blood. These poisons keep the internal lining membrane of the nose in a constant state of irritation, ever ready for the deposit of the seeds of these germs, which spread up the nostrils and down the fauces, or back of the throat, causing ulceration of the throat; up the Eustachian tubes, causing deafness; burrowing in the vocal cords, causing hoarseness; usurping the proper structure of the bronchial tubes, ending in pulmonary consumption and death.

Many attempts have been made to discover a cure for this distressing disease by the use of inhalants and other ingenious devices, but none of these treatments can do a particle of good until the parasites are either destroyed or removed from the mucus tissue.

Some time since a well-known physician of forty years' standing, after much experimenting, succeeded in discovering the necessary combination of ingredients which never fails in absolutely and permanently eradicating this horrible disease, whether standing for one year or forty years. Those who may be suffering from the above disease should, without delay, communicate with the business managers, Messrs. A. H. DIXON & SON, and get full particulars and treatise free by enclosing stamp.

305 King Street West, Toronto, and get full particulars and treatise free by enclosing stamp.

What the Rev. E. B. Stevenson, B. A., a Clergyman of the London Conference of the Methodist Church of Canada, has to say in regard to A. H. Dixon & Son's New Treatment for Catarrh.

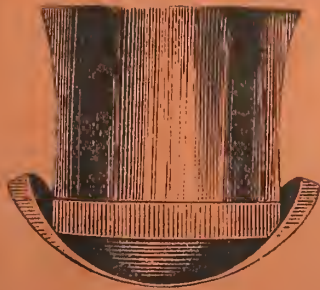
MESSRS. A. H. DIXON & SON:

Dear Sirs,—Yours of the 13th inst. to hand. It seems almost too good to be true that I am cured of Catarrh, but I know that I am. I have had no return of the disease and never felt better in my life. I have tried so many things for catarrh, suffered so much and for so many years, that it is hard for me to realize that I am really better. I consider that mine was a very bad case. It was aggravated and chronic, involving the throat as well as the nasal passages, and I thought I would require the three treatments, but feel fully cured by the two sent me, and I am thankful that I was ever induced to send to you. You are at liberty to use this letter, stating that I have been cured at two treatments, and I shall gladly recommend your remedy to some of my friends who are sufferers. Yours, with many thanks,

REV. E. B. STEVENSON.

TONKIN BROS.

110 YONGE STREET.



*The Leading Hat and Fur Store
of Toronto.*

Attention is called to our Fine Stock of Furs.

Astrachan Jackets.

**S. S. Seal, Otter, Beaver and
Mink Sets.**

**Seal, Beaver & Persian Lamb
Caps.**

**A Large Variety of Fur Capes
and Trimmings.**

**Ladies' Furs made to Order, Cleaned and
Altered to suit, on shortest notice.**

PROFESSIONAL ENDORSEMENT

OF THE

Newcombe Pianofortes.

From the Eminent Artist, OTT / BENDIX, formerly Court Pianist
to His Majesty the King of Denmark, and leading teacher of
the Conservatory of Music, Copenhagen:

"For brilliancy and sympathetic quality of tone, I consider
your Upright Pianos unequalled by any made in Canada. The
touch is responsive, the treble clear and resonant, so that I can
in all respects recommend them."

From MR. EDWARD FISHER, Conductor of the Toronto Choral
Society, and Organist of St. Andrew's Church:

"In examining the various styles of your Pianos, I have found
not only that substantial excellence which is the foundation of a
good instrument, as regards strength and durability, but also an
easy elastic touch, which indicates at once to a musician the su-
periority of the action. The tone quality is pure, sympathetic
and powerful and of that nature which retains its sweetness and
volume, while it increases in brilliancy with use."

**A variety of SECOND-HAND PIANOS by other
makers (received in part payment) at
Special Rates for Cash, or on
easy monthly or quarterly
payments.**

**Octavius Newcombe & Co.
Manufacturers.**

WAREROOMS—Corner Church and Richmond Streets, Toronto.

FACTORIES—107-109 Church, 66 Richmond, & 15 Queen St. East.

W.H. STOREY & SON ACTON, ONT.
SOLE MANUFACTURERS IN CANADA OF
WALKING AND DRIVING
PAT. "NAPA" BUCK GLOVES JUST INTRODUCED
THESE GOODS HAVE NO EQUAL FOR ELASTICITY, FINENESS
OF MATERIAL, STRENGTH AND WEAR: ARE GUARANTEED FIRST
CLASS IN EVERY RESPECT. AND WARRANTED TO GIVE FULL SAT-
ISFACTION. ASK YOUR MERCHANT FOR THEM. SEE THAT
THEY BEAR THE IMPRESS OF OUR NAME AND TAKE NO OTHER.



**SOMETHING NEW !
Novelty Rug Machine.**

Patented March 6, 1882.

With it you can make a beautiful rug
in a few hours that would require
weeks of labor with a hook. You can
make hoods, tidies, lap-ropes, mittens,
door mats, etc. Uses either yarn or
rags. Easy to learn, simple, durable
and perfect. A Machine, with printed
directions, sent by mail, post-paid, to any address,
upon receipt of price, one dollar. Agents wanted
either ladies or gentlemen, to whom liberal in-
ducements will be given. Address R. W. ROSS,
Guelph, Ont., P.O. Box 541, sole manufacturer of
the Novelty Rug Machine.

**JOHN B. HALL,
HOMŒOPATHIST.**

SPECIALTIES—Diseases of Children and Nervous
System. Hours—8 to 10 a.m.; 4 to 6 p.m.;
Sunday, 9 to 10 a.m.; 5 to 6.30 p.m.
326 & 328 JARVIS STREET.

**FRED. S. ROBERTS,
THE CASH GROCER,**
Genuine English Marmalade, 18c. per lb. tin
Genuine English Pickles, 15c. per bottle.
Best Granulated Sugar, 15 lbs. for \$1.
Christmas Fruits at Lowest Prices.
290 YONGE STREET, TORONTO
Nearly opposite Wilton Avenue.

Christmas Baking

Although the good housewife
is always particular about hav-
ing everything she bakes as
nice as she can, yet at Xmas
time more than ever she desires
to excel herself. To make sure
of a sweet well-raised LOAF,
of a flakey toothsome PIE-
CRUST, or anything else for
the table, see that

PURE GOLD

BAKING POWDER

Is the only ingredient used, and
there is no fear of failure. If
you have not yet used PURE
GOLD, ask your Grocer for a
small tin. We recommend a
small quantity because that
once used, the larger quantity
will be wanted. It is a home-
made (Toronto) Powder, and
composed only of the Choicest
and Purest materials.

—USE ONLY—



THE FAVORITE OF THE PEOPLE OF CANADA.

CANADA'S HIGH CLASS PIANOFORTES

"Canada may well feel proud in being able to manufacture such fine Pianofortes" *Mendelssohn Quintette Club.*

The enviable position the Mason & Risch Pianos have attained in the estimation of the musical public of Canada, and the Great Artists of Europe and America, is the result of

UNREMITTING EFFORT
AND

A DETERMINATION TO WIN

A reputation of the highest character for a Canadian Pianoforte.

MASON & RISCH



THE GREAT MASTER

DR. FRANZ LISZT

The highest musical authority in the world, declares that "The Mason & Risch Pianos are excellent, magnificent, unequalled."

DR. EUGENE HAANEL

The Eminent Scientist, says, "I see realized in your Pianos what has been long aimed at but not reached hitherto—namely, a tone so free from anharmonic overtones that it can be emphatically called Flute like—a quality which belongs to your Pianos alone."

32 KING ST. W., TORONTO

The demand for these instruments is steadily increasing as their merits are becoming more extensively known. In buying a Mason & Risch Pianoforte purchasers save agent's commission and expenses by communicating with the firm or their traveller, as customers are supplied direct from the Factory and not through local agents. It will therefore PAY YOU to send for our Catalogue and price lists.

GRATEFUL-COMFORTING.

EPPS'S (BREAKFAST) COCOA.



JAMES EPPS & CO., Homœopathic Chemists.

Use Only RECKITT'S BLUE—"The Best is the Cheapest."

Men's Suits at from \$7.50 to \$22.00.

PETLEY & PETLEY, Toronto.